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ABSTRACT

To identify characteristics of existing associate degree nursing programs, a descriptive questionnaire was mailed to 218 programs in state-approved schools of nursing in the United States, its territories, and possessions. The questionnaire was designed to gain information on background characteristics, organization and administration, students, faculty, curriculum, resources and facilities, and graduates. A 93 percent response resulted in these major conclusions: (1) The programs are generally in schools that are regionally accredited, although they have, as a rule, not received peer accreditation from the National League for Nursing, (2) Students are predominantly female, sgle, and 20 years of age or older, (3) During the first year following graduation, graduates generally work in hospitals, and few continue their education in nursing or non-nursing programs, (4) A higher proportion of directors than of instructors have earned master's or higher degrees and have had formal preparation to teach in community colleges, and (5) The number of potential graduates is reduced by admission criteria, applicant decision not to enter, and student withdrawals. (SB)

ED0 39341

A NATIONAL SURVEY OF ASSOCIATE DEGREE NURSING PROGRAMS

1967

by

Sylvia Lande

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PREFACE

The associate degree nursing program has had the distinction and advantage of being developed in a carefully planned manner and has been exposed to experimentation and scrutiny since its initiation in 1952. This has been due, in part, to the program's far-reaching implications for nursing education and nursing service.

The interest engendered by the program, and the shared intent of the National League for Nursing and the Sealantic Fund, Inc., to promote the program's sound development, continuance, and specific focus on preparation for bedside care, have also made possible the survey being reported here. League interest in the program's advancement began early and has been reflected in a number of the organization's endeavors. For example, a joint committee of the National League of Nursing Education and the American Association of Junior Colleges was succeeded by the NLN-AAJC Committee on Nursing Education. The National League for Nursing (NLN), when created in 1952, provided for a Department of Diploma and Associate Degree Programs in its by-laws.

In 1955 NLN and AAJC adopted a statement of guiding principles for junior colleges participating in nursing education to assist those colleges that wished to establish bona fide associate degree programs in nursing. That same year the League established a consultation service for guidance and assistance to college administrators involved, or contemplating involvement, in a new program.

Through a five-year grant initiated in 1958 the Sealantic Fund, Inc. actively supported the League in its assistive efforts toward the improvement of existing and the development of new associate degree nursing (ADN) programs. A three-year extension of the grant in 1963 made it possible to broaden these activities to include consultation services to faculty members and assistance to community groups to help them understand and promote the sound development of the program.

Official recognition of NLN as an auxiliary accrediting association at the associate degree level was announced by the National Commission on Accreditation in November, 1967. The League's participation in the determination of program-eligibility for federal funding was also recognized at that time.

Several factors were taken into consideration before determining the nature and content of the final report to the Sealantic Fund.

In view of society's persistently increasing demands for additional and specialized nursing services and the concurrent proliferation of associate degree programs, a survey of some of the programs' constituent characteristics was deemed a timely theme for the final report.

Both the survey and this presentation of its findings were made possible under the provisions of the Sealantic grant; many thanks are due for this interest and generosity.

Particular appreciation is expressed to program representatives who so willingly and promptly gave of their time and effort in contributing the information for this report.

Others who were equally generous in giving of their expertise were Dr. Walter R. Johnson, consultant to the project; and the following staff members of NLN: Mr. Gerald J. Griffin, Director, Department of Associate Degree Programs; Miss Margaret M. Collins, Assistant Director, and Miss Dolores A. Wozniak, Consultant, from the Department of Associate Degree Programs; Dr. Margaret Harty, Director, Division of Nursing Education Programs; Dr. Barbara L. Tate, Director, Research and Development; and Dr. Mildred E. Katzell, Director, Measurement and Evaluation Services.

A very helpful contribution was made by Douglas Douthit and William G. Hall, manuscript typists.

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CHAPTER I

INTRODUCTION

The major purpose of this survey was to gain information about some of the current characteristics of the associate degree nursing program.

The dynamics within nursing education point toward the continued growth of these programs in two-year junior or community colleges. They also presage a proportionate increase in the number of ADN graduates who will be joining nursing's ranks as registered nurses, prepared to function at the patient's bedside. In specific focus for inquiry, therefore, were some of the factors related to sound program development, such as faculty, nurse-aspirants, curriculum, and graduates.

The number of ADN programs has grown from 3 programs established in 1952 to a total of 281 in the fall of 1967.[1, 2] A corresponding increase is noted in the number of ADN graduates: from 234, representing 6 programs that had graduated nursing students by September, 1956, to 4,654 students graduated during the academic year 1966-1967.[3, 4, 5] An NLN survey of junior and senior colleges in 1966 revealed these institutions' intent to establish 191 new associate degree nursing programs.[6]

A number of factors, both extrinsically and intrinsically related to nursing, seem to have contributed to this trend in nursing education--among them the synergistic effects of technological, medical, and social advances and a more effective system of communication. These are creating new sets of cultural circumstances which greatly affect the individual and challenge his institutions.

This has been evident in the changing and increasing societal demands for a variety of services and the resultant need to alter the "gestalt" of the services rendered. The diversity, complexity, and volume of these services call for greater specialization in preparation and performance, and for skills that differ in part or wholly from those traditionally employed in the perception, coordination, and execution of the work to be performed.

As cultural determinants, these same advances have produced a changing distribution of types of personnel in the labor force. The basis for this change stems from the occupational and, thus, educational requirements for the performance of the services that society is demanding. It has been noted, for example, that while the demands for unskilled labor have drastically diminished, continually increasing numbers of personnel with college level education or training are needed to support professional individuals in their endeavors.[7] Statistics indicate that only 5 percent of the labor force in 1930 was classified as semiprofessional and technical, as compared to 25 percent in 1960.[8] This shift from manual to cognitive work has universal implications, since "technological change has immediate impact which is nationwide in scope." [9]

In nursing, as in other professions, the cultural modifications of our time have also created a serious imbalance in manpower demand and supply factors. This has been reflected in what has been termed a "shortage" of nurses, despite an unprecedented high of 640,000 registered nurses, including part-time practitioners, employed in 1967.[10]

It has also found expression in an inverse ratio between the more rapidly growing numbers of supporting health personnel versus registered and licensed nurse personnel as such. Recently published statistics, for example, indicate that in 1966 "...employment in the health service industry...reached about 3.7 million...And a gain of another 1.7 million jobs...is anticipated by 1975."[11] In addition, the pressures created by mounting demands for health care have led to utilization of nursing and para-medical personnel, regardless of level or adequacy of preparation, for a variety of often overlapping functions in the care of patients.

Compounding the issue of "not enough" nurses has been the preparation of large numbers of nurse-aspirants in traditional nursing education patterns. This may not always lead to the most effective pedagogic approach for the most efficient utilization of nursing student time, or the best preparation for rendering nursing services in a radically changing area of endeavor.

Since the first formal nursing programs were developed nearly a century ago, nursing education, for the most part, has remained outside the direct sphere of influence of the general educational system in the United States, despite the diversity and universality of this system. Ranging from the early apprentice-type education to that which was eventually offered in a college setting, basic education in nursing has now evolved into four distinct types of programs.

Such education, leading to licensure as a practical or registered nurse, is offered in: 1) 1,149 vocational school or hospital school programs in practical nursing, usually one year in length, leading to a certificate or diploma; 2) 767 hospital school programs, usually three years in length, leading to a diploma; 3) 221 college or university programs, usually four years in length, leading to a baccalaureate degree; and 4) 281 junior or community college programs, usually two years in length, leading to an associate degree.[12]

Graduation figures for the academic year 1966-1967 indicate that a total of 65,881 students graduated from basic programs in nursing. Of these, 27,644 were prepared in practical nursing programs, 27,452 in diploma programs, 6,131 in baccalaureate programs, and 4,654 in associate degree programs.[13]

As a service integrally related to the socio-dynamics within our society, nursing is today faced with serious challenges. Among them are the charges to utilize available nursing resources to best advantage so that "new knowledge" may be translated into safe and adequate service, and to strengthen and promote an educational approach that will meet the service demands that are now growing out of circumstances vastly different from those of the past.

The recommendation in 1965 by the Committee on Education of the American Nurses' Association that minimum preparation for beginning technical nursing practice at the present time be associate degree education in nursing has focused attention sharply on this, the youngest of programs for basic nurse preparation.[14] Historically, it traces its origin to the late forties and early fifties when the need to utilize nursing manpower in more effective ways in a changing society was recognized as imperative both here and abroad.

In Canada, an experimental two-year demonstration school of nursing was initiated in 1948 in Windsor, Ontario.[15] An independent school, it functioned under the supervision of the Canadian Nurses Association and was financed by the Canadian Red Cross Society for a four-year period. The school utilized the clinical facilities of a hospital only for the clinical learning experiences of its students.

This self-contained experiment was an attempt to operate a school of nursing as an educational institution, although not in a collegiate setting, for the purpose of "training" good bedside nurses in a period of less than three years, with the school controlling the use of the students' time, and with a program designed to meet the students' learning needs rather than the service needs of the hospital.[16] Among the conclusions drawn at the termination of the experiment was the indication that, with the school totally controlling the students' time, nurses could be prepared as well in two as in three years.[17]

In the United States, at almost the same time, a group of educators and representatives from the medical and social sciences known as the Committee on the Function of Nursing proposed a new concept of specialization or differentiation of functions in nursing as an effective approach in dealing with the shortage of nurse personnel.[18]

Concern with the need for meeting societal demands for nursing services prompted a study by Montag that was based on the analysis of a three-level continuum of nursing functions ranging from the simple assistive, to intermediate, and to complex ones.[19] The assumptions were made that: "1)...it is possible to consider the functions of nursing as being on a continuum; 2)...these functions can be differentiated sufficiently to make possible programs for the preparation of individuals to perform these functions; [and] 3)...it is economically desirable to set up programs for their preparation in appropriate agencies and educational institutions;..."[20] Specifically indicated types of preparation for the three levels of nurse functions were: on-the-job training for the simple, technical training for the intermediate, and professional education for the more complex ones.[21]

The results of this study led to consideration of the development of a technical program in nursing that would prepare nurse technicians in two years of study, in junior or community colleges throughout the country.* The choice of these schools as the institutional vehicle for technical education in nursing was, in part, based on the following considerations: their major function of serving the needs of the community for essential services, their flexibility in being able to develop new educational programs, and their provision for terminal education.[22]

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*A junior or a community college is defined here as a 2-year educational institution offering post-high school education and will be referred to henceforth as "community college."

Community colleges, as "instruments of educational diversity," have been in existence for more than six decades, and their phenomenal growth during that period of time has vastly expanded the opportunities for education beyond high school.[23] The open door policy that generally characterizes these institutions provides the opportunity for further education to students, with varying capabilities, demographic characteristics and life goals, who might not otherwise seek a post-high school education.[24] Too, as "community" colleges, they are presumed to be geographically within easy reach of members of the community interested in continuing their education.

Between 1952 and 1956 the feasibility of preparing nurse technicians in community colleges was tested by the five-year Cooperative Research Project in Junior and Community College Education for Nursing, conducted at Teachers College, Columbia University.[25] Seven colleges and one hospital school of nursing participated in the development of programs that aimed to prepare individuals who would qualify for nurse licensure, could perform technical functions at the registered nurse level, were prepared for beginning practitioner positions, and met community college requirements for the associate degree.[26, 27]

Basic to these aims was the development of a new and different nursing curriculum including, among other things, general and specialized education, a reorganization of traditional course content, and changes in the usual course sequence. Administrative control by the college was an additional significant program-characteristic that made a two-year time period for the completion of the course an attainable goal.[28]

For nursing, initiation of associate degree programs in community colleges represents an active response to present-day social and educational challenges. The ADN program deals positively with the increasing demands for nursing services by aiming to prepare, in a justifiably shortened period of time, nurses who can perform direct bedside functions associated with the registered nurse and can support the professional nurse in her endeavors. It also provides the opportunity for nurse aspirants to acquire a post-high school education in nursing, with a curriculum specifically designed to meet their needs as students in institutions that are part of the country's organized general educational structure. The fact that associate degree programs tap a new manpower source, comprising individuals who might otherwise not have sought a post-high school education, represents another "plus" in their contribution toward meeting the need for additional nurse practitioners in their own communities and in the community at large.

The introduction of the associate degree program on the nursing scene has not gone unchallenged, however. One reason is undoubtedly the fact that well established practices do not easily give way to new intellectual convictions. Controversial issues of a more concrete nature have also emerged over time, one of them being the designation of the ADN graduate as a "technical" rather than a "semiprofessional" practitioner.

Although no universal agreement exists concerning the exact meaning of technical education, one definition describes it as

> ...that branch of semiprofessional education which is organized into two-year curriculums at the college level; emphasizes work in the fields of science and mathematics, and frequently, but not always, is related to engineering; gives much attention to specialized theory, but also stresses practice and skill in the use of tools and instruments; leads to occupational competence in the chosen technical field, to civic competence as an educated citizen, and usually to the attainment of an associate or equivalent degree.[29]

Semiprofessional education itself has been defined by the same author as

> ...college-level education organized into formal curriculums of two or more academic years, leading to the associate degree, and designed to prepare the student for immediate employment in one of the career fields recognized as being very nearly professional in status. Curriculums in semiprofessional education should include a rather significant content in the liberal arts, since the graduates of such programs are expected to perform both on the job and off the job as persons of near-professional status.[30]

Although differences between technical and semiprofessional education have been suggested, the issue of designating education for nurses on the associate degree level as technical or semiprofessional and the graduate from the program as a technical or semiprofessional practitioner has not been resolved as yet.

Another controversial issue has been the seeming difficulty in accepting a concept that deals with "technical" vis-à-vis "professional" nursing in terms of differences in required knowledge and judgment for behavior in the same nursing situation--a situation that involves technical and professional practitioners subject to the same a growing nurse-aspirant population is strongly evident, and there is a continued shortage of appropriately prepared nurse faculty personnel.[38, 39, 40, 41].

It would seem, too, that the questions raised and others now coming into the foreground make this an optimal time to scrutinize some of the characteristics of the ADN program, a program so carefully nurtured during its formative years and now growing by leaps and bounds.

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CHAPTER II

METHODOLOGY

The decision to do a descriptive questionnaire survey of associate degree nursing programs was made after preliminary discussions as to the data to be collected and the level of analysis to be employed.

The last survey of ADN programs, published by NLN in 1961, was based on data collected from 44 of 48 state-approved programs in existence during the academic year 1958-1959.[1] The present survey was designed to take a "new look" at presently existing programs and to gather information about their current characteristics. The outline for the survey, therefore, focused on an inquiry into some of the ADN program's major facets.

The outline was approved by representatives from the staff of the Department of Associate Degree Programs, its steering committee, and representatives from the Research and Development staff of NLN. The outline was also submitted to the Sealantic Fund, Inc.

THE SAMPLE

With a total of 218 associate degree nursing programs officially listed for October 15, 1966, it was feasible to approach all of the programs for data collection. The sample, thus, represents the national universe of all associate degree programs preparing for registered nurse licensure in state-approved schools of nursing in the United States, its territories, and possessions at that time.

The regional distribution of the programs, as shown in Table 2-1, indicates that the largest number were in the South, followed by those in the West, the North Atlantic, and the Midwest region, in that order.[2]

Table 2-1. Associate Degree Nursing Programs Sampled for Survey, by NLN Region
(N=218)

NLN Region*	Programs	
	No.	%
Region I - North Atlantic	47	22
Region II - Midwest	45	21
Region III - Southern	71	32
Region IV - Western	55	25
Total	218	100

*The four regions, as identified by NLN, comprise the following states, U.S. territories, and possessions.[3]

NLN Region I (North Atlantic) Conn., Del., D.C., Me., Mass., N.H., N.J., N.Y., Pa., R.I., Vt.
Region II (Midwest) Ill., Ind., Iowa, Kan., Mich., Minn., Mo., Neb., N.D., Ohio, S.D., Wis.
Region III (Southern) Ala., Ark., Fla., Ga., Ky., La., Md., Miss., N.C., Okla., Puerto Rico, S.C., Tenn., Tex., Va., Virgin Islands, W.Va.
Region IV (Western) Alaska, Ariz., Calif., Colo., Guam, Hawaii, Idaho, Mont., Nev., N.M., Ore., Utah, Wash., Wyo.

Of the 218 programs, 60 were under the administrative control of universities or senior colleges, 157 were controlled by community colleges, and 1 was an independent program.[4] Public funds supported 185, while private funds financed the remaining 33 of these programs.[5] On October 15, 1966, the 218 programs had a total reported enrollment of 15,338 students, with the vast majority of 12,830 enrolled in community colleges supported by public funds, as shown in Table 2-2.[6]

Table 2-2. Enrollments in Associate Degree Nursing Programs, by Principal Source of Financial Support (N=218)

Financial Support	Number of Programs 10/15/66		Enrollments 10/15/66	
	No.	%	No.	%
Public funds	185	85	12,830	88
Private funds	33	15	2,508	12
Total	218	100	15,338	100

THE QUESTIONNAIRE

The choice of the written questionnaire (Appendix A) as the research tool most appropriate to the purposes of the survey was based on several considerations.

For one thing, the 218 programs were scattered throughout the states and other jurisdictions. Financial, travel, and other considerations, therefore, precluded the possibility of personal questioning. In addition, since specific information, mainly about current conditions, was sought, it was felt that this could be achieved by means of the written questionnaire. Securing adequate and uniform information was considered particularly important since the data thus collected would represent the major source of information for analysis.

In keeping with the expressed purposes of the survey, the questionnaire was designed to gather information related to the following seven facets of associate degree programs: 1) general information, 2) organization and administration, 3) students, 4) faculty, 5) curriculum, 6) resources and facilities, and 7) graduates.

The majority of the questions were completely structured, but a number of semi-structured questions provided the respondents with the opportunity to add an unlisted response under the category "other" if any of the predetermined answers did not seem appropriate.

Caution was exercised in the development of the questionnaire to avoid the possible conditioning of responses. Generally, the questions were designed to obtain specific information details that would, in some measure, also reflect the general philosophy characterizing a given program.

To insure its clarity and ability to elicit the desired and pertinent information, the questionnaire was submitted for pretesting and critical evaluation to 10 educators in associate degree programs throughout the country. The instrument was later revised on the basis of their responses and suggestions. The phraseology of several questions was changed to clarify the meaning and to reduce the number of responses required. Questions that elicited superfluous or meaningless responses were eliminated.

COLLECTION OF DATA

Since the basic aim of the survey was to secure uniform and consistent information, it was necessary to establish and adhere to a standardized process of data collection. It must be emphasized, however, that a limitation of this as of other surveys is related to clarity of questions asked, respondent interpretation of questions, and accuracy of responses submitted.

Data were collected from two separate sources: program respondents who completed the questionnaire and the NLN Measurement and Evaluation Services which supplied information about test results on the registered nurse licensure examination.

Program Respondents

All questionnaires and covering letters (Appendix A) inviting program directors to participate in the survey were mailed simultaneously during the last week in February, 1967 to the 218 programs. Sixty-five percent of the school representatives responded within four weeks; follow-up cards (Appendix B) were sent to the nonrespondents. Several weeks later follow-up letters were mailed to the representatives of those programs that still had not responded (Appendix C). Personal telephone calls were made to the remaining hold-outs.

A total of 204 programs, or 93 percent of all those contacted, ultimately responded. Of the total number of questionnaires returned, 201 (92 percent), representing 43 jurisdictions, arrived in time and in condition to be utilized for analysis (see Table 2-3).

Table 2-3. Associate Degree Nursing Programs Responding to Mailed Questionnaire, by NLN Region (N=201)

NLN Region	Programs	
	No.	%
Region I - North Atlantic	45	22
Region II - Midwest	43	21
Region III - Southern	62	31
Region IV - Western	51	25
Total	201	100

Comparison of frequency distribution and percentages of the responding programs with those of the universe reveals almost identical values. An almost equal proportion of the programs that were included (85 percent) and those that were not included (88 percent) in the study, for instance, were supported by public funds. Respondent and nonrespondent programs were differentiated by administrative control, however. Of programs included in the study, 72 percent were in junior colleges and 28 percent in senior colleges and universities. For the 17 programs not included in the study, the figures were 53 percent and 47 percent, respectively. It is assumed that the absence of the 17 nonrespondent programs from the sample did not constitute a factor contributory to possible skewing of results.

As with most survey questionnaires, not all questions were or, in some instances, could be answered by all respondents. For example, questions relating to graduate performance on the state board examination for licensure could not be answered by programs that had not as yet had a graduating class.

NLN Measurement and Evaluation Services

Inspection of responses related to mean standard scores on the nurse licensure examination (1964-1965) revealed apparent inconsistencies in responses from some of the programs. Written permission (Appendix D) to obtain correct scores for school and state means from the NLN Measurement and Evaluation Services was therefore requested from the boards of nursing in the states involved. Total anonymity for the participating programs and the states in which they were located was assured. Of the 34 state boards approached, 26 gave the permission sought, 7 reported that they had no candidates during the indicated time period, and 1 did not respond. Personal telephone contact also failed to procure written permission in the last instance.

The correct scores for 89 programs in the 26 jurisdictions where permission had been granted were obtained from the NLN Measurement and Evaluation Services and were utilized for analysis and presentation. As a frame of reference for such presentation national State Board Test Pool mean standard scores for graduates from baccalaureate, associate degree, and diploma programs were also obtained.

DATA PROCESSING

The responses from 201 programs, representing the total sample, were processed in the following manner.

Coding

The code was developed on the basis of the data obtained from respondents. It permitted inclusion of information from semi-structured questions, was limited to single digits, and was checked for ambiguities.

Data were checked for inconsistencies, whenever indicated, before coding. Data that seemed obviously inaccurate were checked against previously obtained information regularly published by NLN. If proven inaccurate, the data were coded as "not codable." (For example, figures given for the enrollment of the entire school rather than for the nursing program alone fell into that category. Inaccuracy of response was determined by comparing the responses on the survey questionnaire with those on the annual NLN questionnaire used to gather statistics about admissions, enrollments, and graduations from all state-approved schools of nursing.)

The data were coded by hand by recording a pencilled numerical code on the margin of each inventory. This procedure was also used for data added to the inventory as a result of totalling numbers given by respondents or deriving percentages of given numbers. Computations done by a desk calculator were checked by an independent worker before they were coded. Each inventory was also checked by a second person for coding errors and all evident errors were corrected.

IBM cards were punched to conform with the information provided by the prepared code. The punched data were verified, and errors were corrected.

Automatic Data Processing

The data were then processed by automatic data processing equipment and the results, in the form of frequency distributions and percentages, were entered on record sheets for analysis. For further detection and correction of errors, a print-out of a column count was examined, as was the information on the record sheets. Results from data processed as cross-tabulations were examined against codes for frequency distributions in order to detect possible errors in processing.

ANALYSIS OF DATA

Data were collected from questions with multiple categories and from official scores for school and state means obtained on the registered nurse licensure examination. Data, including percentages calculated from some of the information, were tabulated as frequency distributions.

To infuse the descriptive information with additional meaning, relationships between given variables were examined by means of cross-tabulations.

Specifically, such relationships were sought among a number of variables under the categories relating to general information, students, faculty, curriculum, graduates, and regional distribution. The rationale for focusing on these particular factors was the possibility of their differentiating among programs on given variables.

Since the number of programs for which such relationships could be examined varied for each factor cross-tabulated, the analyses done and the information presented are not always referent to the total 201 programs included in the survey but to the number of programs for which cross-tabulations on a given factor could be done.

The following procedure was used for data analysis and presentation:

1. For all questions yielding frequency distributions, data were analyzed descriptively and presented.
2. For frequency distributions of percentages computed from information submitted in response to questions, data were also analyzed descriptively and presented.
3. Data obtained from cross-tabulations of variables were compared by means of the chi square test of significance of differences in the following instances:
    a. when data were considered qualitative and the assumption of independence could be made;
    b. when data were available for a minimum of 30 programs, since a correction formula for continuity was not applied in the written program for IBM processing;
    c. when the expected frequency in any cell was not zero, and when the expected frequencies falling between 1 and 5 were not calculated for more than 20 percent of the cells.
4. Because of the limitations imposed by the nature of the data and the form of analysis employed, the amount of information presented as a result of cross-tabulations is limited.
    a. When statistically significant differences among cross-tabulated variables were found, the findings are presented and the main-line variables tested are discussed.
    b. When no statistically significant differences among cross-tabulated variables were found, some of the data are also presented and analyzed descriptively.
    c. Cross-tabulated data that were not compared by statistical methods are analyzed descriptively.
5. The .05 level of significance was used throughout.
6. All data obtained from questionnaire responses and from cross-tabulations of variables are presented in tabular form. In some instances this involves composite tables to provide a common frame of reference for interpretation of related findings. Each subtable, however, is complete within itself.
7. Because of rounding of numbers, percentages do not always add up to 100.

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[6] *Loc. cit.*

CHAPTER III

GENERAL INFORMATION

This chapter is concerned with some of the background characteristics that can be inclusively categorized as "general information" about the programs surveyed. Among these are the development of a basic philosophy and objectives for the program, supposedly consistent with the philosophy and purposes of the host college or university and expressive of educational principles significant in the effective preparation of nurses for bedside care.

Information was also requested as to the length of time a program had been in existence, since program age was considered significant both in relation to the rate of accretion of new programs and as a variable relevant to other factors examined.

The initial sources of consultative assistance tapped by programs during their establishment periods, their accreditation status at the time of the survey, and total enrollment per program as of January, 1967, were additional factors for inquiry.

All these characteristics are seen as information that serves as a frame of reference for all findings concerning associate degree programs presented in succeeding chapters.

PHILOSOPHY AND OBJECTIVES

It was assumed that the development of educational objectives and a guiding philosophy would be inherent in the attempt to achieve a specific educational goal. The respondents were, therefore, asked to indicate whether or not they had developed objectives and a guiding philosophy for their program, and the forms in which both of these were presented.

All except 2 respondents indicated that their programs were based on a stated philosophical approach to education. Of the 201 programs, 198 had described such philosophy in writing (Table 3-1). A slightly smaller number of the programs, 193, had written objectives. Two of the programs functioned without either written or oral objectives.

Table 3-1. Associate Degree Nursing Programs Reporting the
Development of a Philosophy and of Objectives,
by Form of Presentation
(N=201)

Form of Presentation	Philosophy and Objectives			
	Philosophy		Objectives	
	No.	%	No.	%
Written	198	99	193	96
Oral	1	+	2	1
None	0	0	2	1
No response	2	1	4	2
Total	201	100	201	100

+Less than 1 percent.

AGE OF PROGRAM

Table 3-2 indicates the length of time the 201 responding programs had been in existence and reflects the continuing growth in the number of associate degree programs. Only 22 percent of the responding programs were 7 years old or older. Expectedly, the highest proportion of programs, constituting nearly half of the group, had been in existence for less than 3 years.

Table 3-2. Associate Degree Nursing Programs,
by Years Program Has Been in Existence
(N=201)

Number of Years	Programs	
	No.	%
Less than 3	83	41
3 - 4	45	22
5 - 6	28	14
7 or more	44	22
No response	1	+
Total	201	100

+Less than 1 percent.

Geographic area and the number of years a program had been in existence were related, as shown in Table 3-3. It appears that the development of associate degree nursing programs has not been a consistent nationwide effort.

Table 3-3. Associate Degree Nursing Programs Reporting Age of Program, by NLN Region
(N=200)

NLN Region*	Years Program in Existence									
	Less than 3		3 - 4		5 - 6		7 or more		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
North Atlantic	16	19	12	27	8	29	9	21	45	23
Midwest	24	29	9	20	4	14	6	14	43	22
Southern	33	40	15	33	5	18	8	18	61	31
Western	10	12	9	20	11	39	21	48	51	26
Total	83	100	45	100	28	100	44	100	200	100

*NLN Region I (North Atlantic) Conn., Del., D.C., Me., Mass., N.H., N.J., N.Y., Pa., R.I., Vt.
Region II (Midwest) Ill., Ind., Iowa, Kan., Mich., Minn., Mo., Neb., N.D., Ohio, S.D., Wis.
Region III (Southern) Ala., Ark., Fla., Ga., Ky., La., Md., Miss., N.C., Okla., Puerto Rico, S.C., Tenn., Tex., Va., Virgin Islands, W.Va.
Region IV (Western) Alaska, Ariz., Calif., Colo., Guam, Hawaii, Idaho, Mont., Nev., N.M., Ore., Utah, Wash., Wyo.

Among the oldest programs, by far the largest single group was located in the Western region of the country. The greatest number of programs were less than three years old, and these findings show that the recent activity has been in the Southern and Midwestern regions as far as associate degree program establishment is concerned.

INITIAL SOURCES OF CONSULTATIVE ASSISTANCE

The programs were asked to indicate the individuals, institutions, agencies, and other resources that were of help to them in their establishment efforts. Table 3-4 shows these in order of diminishing frequency of mention by respondents.

Table 3-4. Associate Degree Nursing Programs Reporting Sources of Consultative Assistance for Initiation of Program, by Indication of Assistance
(N=201)

Indication of Assistance	Source of Assistance																			
	State Board of Nursing		Publications		Personnel, Jr/Community Colleges		Personnel, Hospital		Nat'l. League for Nursing		Profs. of Nsg. Ed. Not Jr/Community Colleges		State Department of Education		Nursing Association		American Assoc. of Junior Colleges		Other	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Assistance indicated	180	90	170	85	148	74	142	71	122	61	108	54	85	42	51	25	44	22	46	23
Assistance not indicated	21	10	31	15	53	26	59	29	79	39	93	46	116	58	150	75	157	78	155	77
Total	201	100	201	100	201	100	201	100	201	100	201	100	201	100	201	100	201	100	201	100

The utilization of a number of assistive resources by the majority of programs is evident. Most often mentioned were state boards of nursing, with only 10 percent of the programs failing to indicate them as sources of assistance.* A large majority of the programs, 85 percent, had also relied on available literature for pertinent information. Indicated by separate majorities, too, were personnel from community colleges and hospitals, NLN, and professors of nursing education not associated with community colleges.

Successively fewer programs reported assistance from state departments of education and nursing associations other than NLN. The American Association of Junior Colleges was mentioned by 22 percent of the programs as helpful in establishing a new nursing program in the academic setting of the community college. Nearly one quarter of the programs mentioned other resources such as foundations, the federal government, and "workshops."

ACCREDITATION STATUS

Responsibility for the accreditation of colleges is vested in regional accrediting associations. For the individual nursing program within a college, responsibility for voluntary accreditation rests with NLN, representative of peer professional membership.

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*Previously published findings concerning influences in establishing associate degree programs in colleges indicate that "half of the colleges that had a nursing program mentioned the assistance of the state board of nursing, while only 25 percent of the respondents in the other two categories [considering establishment, or decided not to establish] mentioned assistance from the state board." (Mildred S. Schmidt. Factors Affecting the Establishment of Associate Degree Programs in Nursing in Community Junior Colleges. New York, National League for Nursing, 1966. p. 64.)

The incidence of regional as well as NLN accreditation among the respondents is shown in Table 3-5. More than three quarters of the programs were in colleges that had regional accreditation; another 6 percent claimed such accreditation on a provisional basis. Fifteen percent of the programs reported that their host schools were not regionally accredited.

Table 3-5. Associate Degree Nursing Programs Reporting Source of Accreditation, by Type of Accreditation
(N=201)

Type of Accreditation	Source of Accreditation			
	Regional		NLN	
	No.	%	No.	%
Accredited	157	78	30	15
Not accredited	30	15	171	85
Provisional accreditation	12	6	0	0
No response	2	1	0	0
Total	201	100	201	100

Only 15 percent of the programs had been accredited by NLN.* This is partially explained by the fact that only those programs that have graduated at least one class or are nearing the end of the sequence in total courses for a given class are eligible for NLN accreditation. The number of programs that were therefore too "new" to qualify represented a substantial proportion of the non-NLN accredited programs. Many others had not applied for program accreditation.

ENROLLMENT, JANUARY, 1967

Student enrollment in a given program is an important factor in program planning and program activity. Respondents were therefore asked to indicate their program enrollment as of January, 1967. Table 3-6 presents these findings.

Table 3-6. Associate Degree Nursing Programs, by Size of Enrollment as of January, 1967
(N=201)

Size of Enrollment	Programs	
	No.	%
Less than 20	13	6
20-39	47	23
40-59	49	24
60-79	37	19
80-99	20	10
100-119	15	7
120 or more	13	6
No response	7	3
Total	201	100

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*Information obtained from the Department of Associate Degree Programs, National League for Nursing, Spring, 1967.

Reported enrollments per program ranged from less than 20 to 120 or more. Almost a quarter of the programs had a student body ranging from 40 to 59 students. An almost equal proportion had between 20 and 39 students. The majority of the programs had 59 or fewer students, and 42 percent reported a total enrollment of 60 or more students. Since a number of the programs had not been established until 1966 or later, their "total enrollment" may refer to only one beginning class of students.

When size of enrollment was examined in relation to NLN region in which the program was located, the chi square test showed statistically significant differences among the program groups as shown in Table 3-7.

Table 3-7. Associate Degree Nursing Programs Reporting Size of Enrollment, by NLN Region
(N=194)

NLN Region	Size of Enrollment							
	Less than 40		40 - 79		80 or more		Total	
	No.	%	No.	%	No.	%	No.	%
North Atlantic	6	10	20	23	15	31	41	21
Midwest	11	18	22	26	8	17	41	21
Southern	33	55	21	24	7	15	61	31
Western	10	17	23	27	18	38	51	26
Total	60	100	86	100	48	100	194	100

($X^2=28.23$; df=6; $X^2_{95}=12.59$)

Of the 60 programs whose total enrollment was below 40 more than half were in the South. The 86 programs enrolling between 40 and 79 students were almost evenly distributed among all four regions. Among the 48 programs with enrollment figures of 80 or more, 38 percent were in the West and 31 percent were in the North Atlantic region.

Thus, smaller enrollments of students tended to be more representative of associate degree nursing programs in the South than of those in the other three regions in the country. Larger enrollments seemed more prevalent in the Western and in the North Atlantic regions.

SUMMARY

Nearly all of the programs were guided by a given educational philosophy and had developed specific educational objectives.

On the whole, programs of more recent origin tended to be located in the Southern, and the older ones in the Western, parts of the country.

For initial consultative assistance, the vast majority of programs had turned to state boards of nursing and pertinent literature, although they also consulted educational and hospital personnel and NLN, among other sources. Less than a quarter of the programs reported assistance from the American Association of Junior Colleges.

Over three quarters of the programs were in institutions of higher learning that were regionally accredited. Only a few were NLN accredited, with the recency of establishment of many of the programs contributing to this fact.

A majority of programs had total enrollments of 59 or fewer students, again in part due to their recent establishment. Relatively smaller enrollments tended to characterize programs in the South, with larger enrollments more prevalent in the Western and North Atlantic regions.

CHAPTER IV

ORGANIZATION AND ADMINISTRATION

Basic to the establishment and effective continuance of an educational program are the organizational and administrative mechanisms established for these purposes. For nursing programs in community colleges, it is assumed that such mechanisms will reflect the policies of comparable programs in the college. Generally, these mechanisms are concerned with the established policies, responsibilities, and privileges relevant to administrative authority, functioning, and academic relationships.

Specific information was therefore sought from the programs about the school representatives to whom the administrator of the nursing unit was responsible; the developers of program objectives; the school representatives responsible for faculty selection, retention, and promotion, and the identification of faculty functions; the developers of the curriculum for the nursing program; the determiners of content for contracts or agreements with cooperating institutions, of budgetary needs, and of distribution of funds for the nursing program.

LINES OF AUTHORITY

As an integral part of a community college, the nursing program is considered to be governed by the general policies in effect for the college as a whole, including adherence to established lines of authority.

Such lines of authority are not standardized but may be considered unique to a given program, reflecting its general philosophy and organizational arrangements. Among the factors contributing to the diversity of such arrangements has been the introduction into community colleges of a number of new programs with curriculums of a technical nature, under the administrative supervision of a "dean of technical/vocational education." The administrator in charge of the technical nursing program, therefore, functions, in many instances, under the direct authority of the individual so designated.

Table 4-1 presents the school representatives to whom the directors of the nursing programs were responsible.

Table 4-1. Associate Degree Nursing Programs, by School Representatives to Whom Director of Nursing Program Is Responsible
(N = 201)

School Representatives	Programs	
	No.	%
Administrator or assistant administrator*	88	44
Dean (other than technical/vocational education) or division chairman, or department head	57	28
Dean/director of technical/vocational education only	46	23
Other**	9	4
No response	1	+
Total	201	100

+ Less than 1 percent.

* Includes 7 programs in which the director of the nursing program was in addition responsible to others, but not the dean/director of technical/vocational education.

** Includes multiple numbers of division chairmen or department heads.

In almost half the programs, the nursing program directors were responsible to the administrator of the college/university or his assistant. Another 28 percent were responsible to a variety of deans, division chairmen, or department heads. Less than a quarter of the group were under the direct authority of a designated dean/director of technical/vocational education.

DEVELOPMENT OF PROGRAM OBJECTIVES

Among the major undertakings in the establishment of an educational program is the development of its objectives. The respondents were, therefore, asked to indicate who was charged with this responsibility within their own programs. Their responses are shown in Table 4-2.

Table 4-2. Associate Degree Nursing Programs, by Developers of Objectives for the Program
(N=201)

Developers of Objectives	Programs	
	No.	%
Faculty, nursing program	83	41
Director and faculty	64	32
Director, faculty, and administrator	23	11
Director only	12	6
Other*	15	7
No response	4	2
Total	201	100

* Includes different combinations of developers listed above and others not listed.

Forty-one percent of the respondents indicated that only the faculty of the nursing program was responsible for developing the objectives. In approximately one-third of the group, the director of the nursing program and her faculty shared this responsibility. Small proportions of programs indicated the involvement of the school administrator as well as the director and her faculty, the program director alone, and others such as boards of education and federations of teachers, which were mentioned in addition to or instead of school personnel.

Thus, for 84 percent of the programs, members of the faculty were involved in the development of the objectives for the educational program. The directors, on the other hand, participated in this activity in only about half of the programs.

FACULTY SELECTION, RETENTION, AND PROMOTION

Since efficacy of program is in large measure related to competency of faculty, the respondents were asked to indicate with whom the important responsibility for developing and maintaining the faculty as a functioning unit rested. Table 4-3 indicates their responses.

In 88 percent of the programs, the director was involved in the processes of faculty selection, retention, and promotion; in approximately one quarter of the programs, she held sole responsibility for this function. In more than

Table 4-3. Associate Degree Nursing Programs, by School Representatives Responsible for Faculty Selection, Retention, and Promotion
(N=201)

School Representatives	Programs	
	No.	%
Director and administrator	92	46
Director	53	26
Director and others, not administrator	24	12
Director, administrator, and others	8	4
Administrator, with or without others, not director	3	1
Other*	12	6
No response	9	4
Total	201	100

* Includes different combinations of school representatives listed above and others not listed.

half of the programs, however, the college administrator, too, was an active participant in these faculty screening processes. Other individuals sharing in this process in small numbers of the programs included deans, chairmen, and, in a few instances, the faculty itself. Faculty, however, were not generally involved in selection and retention of their peers; in a few programs this also held true for the directors.

DEFINITION OF FACULTY FUNCTIONS

A corollary responsibility to faculty selection, retention, and promotion is the definition of faculty functions. In relation to this responsibility, too, the director was very much involved, as indicated by 87 percent of the programs (see Table 4-4); she was the sole and decisive authority in one fifth of them. In 46 percent of the programs, the faculty members also had a voice in the delineation of their functions. In 58 percent of the programs, the school administrator was also involved in this process. In a number of instances, other participants were mentioned. They included staff members such as deans and division chairmen as well as representatives from boards of education and federations of teachers.

CURRICULUM DEVELOPMENT

The curriculum in an associate degree nursing program is assumed to reflect the educational philosophy governing the program as well as college policy in general. The programs were, therefore, asked to indicate who developed their curriculums (Table 4-5).

In more than half of the programs, the director and the nurse faculty were charged with this responsibility. In another 14 percent, the total faculty as well as the director participated in curriculum development. Smaller proportions of programs reported different variations in director/faculty involvement but, generally, both were involved in the determination of curriculum content in nearly all of the programs. An exception were the 18 programs in which the directors apparently did not participate in the curriculum development process.

Table 4-4. Associate Degree Nursing Programs, by School Representatives Responsible for Definition of Faculty Functions
(N=201)

School Representatives	Programs	
	No.	%
Director, administrator, faculty, with or without others	74	37
Director, administrator, with or without others, not faculty	43	21
Director only	40	20
Director, faculty, with or without others, not administrator	19	9
Other*	15	7
No response	10	5
Total	201	100

* Includes different combinations of school representatives listed above and others not listed.

Table 4-5. Associate Degree Nursing Programs, by Developers of the Curriculum for the Nursing Program
(N=201)

Developers of Curriculum	Programs	
	No.	%
Director and nurse faculty	120	60
Director and total faculty	28	14
Director and total faculty and others	19	9
Total faculty only	18	9
Director only	9	4
Other*	6	3
No response	1	+
Total	201	100

+Less than 1 percent.

* Includes different combinations of developers listed above and others not listed.

CONTENT IN CONTRACTS OR AGREEMENTS WITH COOPERATING INSTITUTIONS

An integral and essential factor in the preparation of nurses in associate degree programs is their clinical laboratory experience in cooperating institutions. Information was therefore sought as to who determined the content of the contracts or agreements between the college and the cooperating institutions, when such contractual arrangements existed. Not all programs had contracts or agreements with all their cooperating institutions.

Table 4-6 indicates that the director of the nursing program contributed to the development of such content in a great majority of the programs. In 22 percent of the programs, she alone was instrumental in contract-content decision. In a majority of the programs, she functioned cooperatively with the school administrator and others. In an additional 9 percent, the cooperating institutions were also mentioned as involved in the decision-making.

Table 4-6. Associate Degree Nursing Programs, by Determiners of Content for Contracts or Agreements with Cooperating Institutions (N=201)

Determiners of Content	Programs	
	No.	%
Director, administrator, with or without others, cooperating institutions not indicated	115	57
Director only	45	22
Director, administrator, and cooperating institutions, with or without others	19	9
Administrators only	6	3
Other*	16	8
Total	201	100

* Includes different combinations of determiners listed above and others not listed.

DETERMINATION OF BUDGETARY NEEDS AND DISTRIBUTION OF FUNDS

Preparation and administration of the program budget are important aspects of administrative authority. The respondents were therefore asked to indicate the persons charged with these responsibilities for the nursing programs.

Table 4-7 reflects the involvement of a variety of individuals in 1) the determination of the budgetary needs of the nursing program and 2) the distribution of allotted funds.

Budgetary Determinations

The director, either alone or with others such as faculty and administrator, represented the budgetary needs of her program in 85 percent of the programs. More specifically, the director and her faculty were involved in budgetary determinations in more than a third of the programs; the director and the school administrator shared this responsibility in close to a quarter of the programs. In 18 percent of the programs, the director had sole responsibility for determining budgetary program needs, while in another 5 percent she shared this responsibility with the faculty and the administrator.

Table 4-7. Associate Degree Nursing Programs Reporting the Determination of Budget Needs and the Distribution of Funds for the Nursing Program, by School Representatives Responsible for These Activities
(N=201)

School Representatives	Budgetary Provisions			
	Budget Needs		Distribution of Funds	
	No.	%	No.	%
Director and faculty	79	39	0	0
Director and administrator	46	23	50	25
Director only	37	18	67	33
Director, faculty, and administrator	10	5	0	0
Administrator only	8	4	38	19
Business officer	0	0	11	5
Director and business officer	0	0	7	3
Other*	20	10	28	14
No response	1	+	0	0
Total	201	100	201	100

+Less than 1 percent.

* Includes different combinations of school representatives listed above and others not listed.

Distribution of Funds

As far as distribution of funds is concerned, the picture was somewhat different. Although the number of directors who were solely responsible for this function constituted a third of the group, the proportion of programs in which the administrator was solely responsible was also considerable, approximately one fifth of the group. Director and administrator shared this responsibility in one quarter of the programs. In 5 percent of the programs, the business manager alone held this responsibility and in 3 percent he shared it with the program director.

Thus, although the director of the program was involved in fund disbursements in a majority of the programs, her participation in the determination of budget needs involved an even greater number of programs. A possible reason for this difference may be the purely mechanical arrangement developed in given colleges for the actual distribution of funds. Whether such an arrangement was the responsible factor could not be determined from the data.

SUMMARY

For the vast majority of programs, administrative authority, responsibilities, and privileges seemed to be vested primarily with the program directors, although these were shared with faculty, school administrators, and others in a considerable number of instances.

In the established lines of authority, the program directors were nearly equally divided between those who were directly responsible to the administrator of the school and those responsible to deans or program chairmen.

While faculty members were more often involved in developing objectives for the program than was the director, the latter was a more frequent participant in faculty selection, retention, and promotion and in the definition of faculty functions. The director and the nursing faculty shared the responsibility for curriculum development in a majority of programs. In a smaller number but still over a third of the programs, the director and the faculty alone were responsible for determination of the nursing program's budgetary needs. The director of the nursing program participated in the determination of content of contracts or agreements in a large majority of programs, sharing this responsibility with the college administrator in a smaller number. The nursing program director also had a voice in the distribution of allotted funds in the majority of programs.

CHAPTER V

THE FACULTY

Successful preparation of students capable of giving safe and adequate nursing care depends largely upon the availability of sufficient numbers of appropriately qualified teachers in nursing programs. The continued shortage of such faculty members places an exceptionally heavy burden and considerable responsibility on those now actively engaged in the educational preparation of nurse aspirants.*

Compounding the issue in associate degree nursing programs is the heterogeneity of the student body's demographic characteristics, intellectual motivations, and interests, requiring adaptive and creative abilities from the teacher and for the teaching process. Another contributing factor to the problem is the mixture of variously prepared faculty members teaching within a given program. While their qualifications usually stem from a variety of educational and other experiences, they do not necessarily include formal preparation for community college teaching.

Since teacher qualifications, along with other factors, are eventually reflected in student performance, quantitative data relevant to qualifications of the faculty members in associate degree nursing programs were sought. Chosen for inquiry were questions related to numbers of faculty, their educational and experiential background, and factors related to their working situation.

The findings are presented from the standpoint of total faculty in associate degree nursing programs, faculty characteristics in relation to variables distinguishing among groups of programs, and--in some instances--for faculty broken down into administrators, full-time, and part-time groups.

Terms are defined as follows:

Total faculty comprises nursing administrators, full-time and part-time members of a given faculty.

Full-time faculty designates those faculty members who work the total number of hours stipulated by the school administration for a full-time position.

Part-time faculty designates those faculty members who work fewer than the total number of hours stipulated by the school administration for a full-time position.

Administrator is the person designated as being in charge of the nursing program, regardless of special title (the title "director" is sometimes used synonymously).

NUMBER OF FACULTY

A total of 1,391 faculty members, including 201 directors, were reported by the 201 programs, as shown in Table 5-1. Of this total, 92 percent were full-time employees. There were 110 part-time faculty members, including 8 directors, reported in 71 programs.

Faculty per Program

The number of faculty members per program ranged from 2 to 46, with the majority of programs having faculties of less than 7 (Table 5-2). A third of the programs, however, reported either 5 or 6 faculty members. Thirteen percent had only 4 faculty members, and almost the same percentage had less than 4.

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*As of January, 1968, the total number of unfilled budgeted positions for all nursing programs, including cooperating institutions, was 1,657. Two hundred and two unfilled budgeted faculty positions were reported among 280 responding associate degree programs. (National League for Nursing. Nurse-Faculty Census 1968. New York, the League, 1968. p. 3.)

Table 5-1. Faculty Members Reported in Associate Degree Nursing Programs, by Employment-time Classification

Time	No. of Programs	Administrators		Faculty*		Total Faculty	
		No.	%	No.	%	No.	%
Full-time	201	192	95	1,088	91	1,280	92
Part-time	71	8	4	102	9	110	8
No response	1	1	+	0	0	1	+
Total		201	100	1,190	100	1,391	100

+Less than 1 percent.

* Administrators not included.

The average number of full-time teachers per faculty, including the 192 full-time administrators, was slightly more than 6 (6.36). With the addition of another estimated 55 faculty members (considering 2 part-time as 1 full-time member), the average rose to 6.64 teachers per faculty.

Table 5-2. Frequency Distribution of Total Faculty in Associate Degree Nursing Programs (N=201)

No. of Faculty Members*	Programs	
	No.	%
2	1	+
3	26	13
4	27	13
5	34	17
6	33	16
7	18	9
8	23	11
9	9	4
10	4	2
11	4	2
12	2	1
13	7	3
14	4	2
15	3	1
16	1	+
19	1	+
20	2	1
23	1	+
46	1	+
Total	201	100

+Less than 1 percent

* Includes administrators, full-time and part-time faculty members.

As Table 5-3 shows, the total number of full-time faculty members in each program tends to correspond with the size of the student enrollment. Thus, nearly half of the programs with less than 5 full-time faculty members had

Table 5-3. Associate Degree Nursing Programs Reporting Number of Full-time Faculty Members and Administrators*, by Total Student Enrollment
(N=194)

Number of Students	Number of Faculty											
	1 - 4		5 - 6		7 - 8		9 - 10		11 or more		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Less than 20	13	22	0	0	0	0	0	0	0	0	13	7
20 - 39	27	46	20	26	0	0	0	0	0	0	47	24
40 - 59	15	25	27	36	6	19	1	13	0	0	49	25
60 - 79	3	5	21	28	13	41	0	0	0	0	37	19
80 - 99	1	2	3	4	11	34	3	38	2	11	20	10
100 - 119	0	0	5	7	1	3	4	50	5	26	15	8
120 or more	0	0	0	0	1	3	0	0	12	63	13	7
Total	59	100	76	100	32	100	8	100	19	100	194	100

* Includes full-time and part-time administrators.
The omission of part-time faculty places these programs in different frequency categories from those presented in Table 5-2.

Table 5-4. Associate Degree Nursing Programs Reporting Number of Full-time Faculty Members and Administrators*, by NLN Region
(N=201)

NLN Region**	Number of Faculty							
	1 - 4		5 - 6		7 or more		Total	
	No.	%	No.	%	No.	%	No.	%
North Atlantic	11	18	19	24	15	24	45	22
Midwest	14	23	18	23	11	18	43	21
Southern	26	43	26	33	10	16	62	31
Western	10	16	15	19	26	42	51	25
Total	61	100	78	100	62	100	201	100

($X^2 = 17.40$; df = 6; $X^2_{95} = 12.59$)

* Includes full-time and part-time administrators.

** NLN Region I (North Atlantic) Conn., Del., D.C., Me., Mass., N.H., N.J., N.Y., Pa., R.I., Vt.

Region II (Midwest) Ill., Ind., Iowa, Kan., Mich., Minn., Mo., Neb., N.D., Ohio, S.D., Wis.

Region III (Southern) Ala., Ark., Fla., Ga., Ky., La., Md., Miss., N.C., Okla., Puerto Rico, S.C., Tenn., Tex., Va., Virgin Islands, W.Va.

Region IV (Western) Alaska, Ariz., Calif., Colo., Guam, Hawaii, Idaho, Mont., Nev., N.M., Ore., Utah, Wash., Wyo.

an enrollment of 20 to 39 students; more than a third of the programs with 5 or 6 faculty members enrolled 40 to 59 students; and 41 percent of those with 7 or 8 faculty members had 60 to 79 enrolled students. Of the 19 programs with at least 11 instructors, 12 had 120 or more students.

The number of full-time faculty members per program was also related to NLN region, and, by means of the chi square test, statistically significant differences on this factor were found among the established groups of programs.[1] Thus, as shown in Table 5-4, programs with the greatest number of full-time faculty were more prevalent in the West than in other regions of the country. Among the programs with the smallest number of full-time instructors, the largest proportion were located in the South. The South also had the largest proportion of programs employing 5 or 6 faculty members.

Since size of faculty was also directly related to total enrollment and possibly to program requirements, the true meaning of this statistical finding is not evident from these figures alone.

EDUCATIONAL BACKGROUND

This section deals with the general educational preparation of faculty members and with their preparation for teaching in the academic setting of the community college.

Academic Preparation

Table 5-5 reflects the educational background of faculty members in associate degree nursing programs.*

Table 5-5. Administrators, Full-time, and Part-time Faculty Members in Associate Degree Nursing Programs, by Highest Credential Earned

Credential	Administrators* (N=201)		Full-time Faculty (N=1,088)		Part-time Faculty (N=102)		Total Faculty (N=1,391)	
	No.	%	No.	%	No.	%	No.	%
Masters	181	90	690	63	37	36	908	65
Bachelors	7	3	355	33	51	50	413	30
Ed. D.	10	5	3	+	0	0	13	1
Ph. D.	0	0	1	+	0	0	1	+
Other	0	0	15	1	8	8	23	2
No response	3	1	24	2	6	6	33	2
Total	201	100	1,088	100	102	100	1,391	100

+Less than 1 percent.

* Includes 192 full-time, 8 part-time administrators; also, 1 administrator without employment-time classification.

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*In previously reported findings relating to instructors in public junior colleges generally, it was shown that in 1955, of a total of 6,985 instructors, 7.2 percent held the doctorate, 68.5 percent the masters, and 17.9 percent the bachelors degree; another 6.5 percent held no degree. (C. C. Colvert. "Professional Development of Junior College Instructors." Junior College Journal, 25:474-478, April, 1955. p. 475. Presented as part of a table in James W. Thornton, Jr. The Community Junior College. 2d. ed. New York, John Wiley and Sons, 1960. p. 136.)

Approximately two thirds of the total faculty indicated the masters as the highest degree earned, and two thirds of the full-time faculty also held the masters as their highest degree. A much higher proportion (90 percent) of the administrative group and a smaller proportion (36 percent) of the part-time faculty had earned the masters degree.

On the other hand, exactly half of the part-time group held the bachelors degree, in comparison to only a third of the full-time faculty. Among the administrators, 7 were reported with the bachelors as their highest degree. Fourteen faculty members, of whom 10 were directors, indicated that they had earned the doctorate. None were part-time.

Only 23 teachers, of whom 15 were full-time and 8 were part-time, lacked the bachelors degree. As their highest scholastic achievement, they reported the associate degree, the registered nurse diploma, and a variety of certificates.

Table 5-6 indicates that the number of faculty members academically prepared beyond the bachelors degree varied considerably among the programs, suggesting different degrees of functional responsibilities expected from these educators. The percentages ranged from none, reported by 3 programs, to 100 percent, indicated by 42. More than half of the programs reported that 60 percent or more held masters or higher degrees. A third of the programs reported 80 to 100 percent of the faculties were so prepared. These proportions, of course, relate to faculties varying in size from 2 to 46.

Table 5-6. Associate Degree Nursing Programs, by Percent of Total Faculty with Masters or Higher Degrees
(N=201)

Percent Total Faculty	Programs No.	Programs %
None	3	1
1 - 19	3	1
20 - 39	33	16
40 - 59	37	18
60 - 79	47	23
80 - 99	25	13
100	42	21
Not codable*	11	5
Total	201	100

* No response or response not indicated for every member of a given faculty.

Regional Distribution. The relationship between the proportion of members per faculty with masters or higher degrees and region in which the program was located was examined for 190 programs. The findings will be analyzed descriptively (Table 5-7).

Of the 39 programs with less than 40 percent of their faculty members with earned masters or higher degrees, by far the highest proportion, nearly two thirds, were in the South. Among the 67 programs claiming 80 percent or more instructors with educational preparation beyond the bachelors, close to a third were in the West and an almost equal proportion in the North Atlantic region. The lowest proportion of programs in this group was in the South.

Table 5-7. Associate Degree Nursing Programs Reporting Percent of Total Faculty with Masters or Higher Degrees, by NLN Region
(N=190)

NLN Region	Percent of Faculty							
	Less than 40*		40 - 79		80 or more		Total	
	No.	%	No.	%	No.	%	No.	%
North Atlantic	5	13	21	25	19	28	45	24
Midwest	6	15	17	20	17	25	40	21
Southern	24	62	23	27	11	16	58	31
Western	4	10	23	27	20	30	47	25
Total	39	100	84	100	67	100	190	100

* Includes 3 programs whose faculty have not earned a masters or higher degree.

Eighty-four out of 190 programs reported 40 to 79 percent of their faculty with earned masters or higher degrees. Within this group, the proportions of programs ranged from 27 percent in the Southern and Western parts of the country, through 25 percent in the North Atlantic and 20 percent in the Midwest region.

Thus, faculties with fewer members who had earned the masters or a higher degree were more representative of associate degree programs in the South. Those with larger proportions of instructors so prepared were more apt to be in the West and North Atlantic regions.

Relationship to Licensure Examination Scores. The relationship between faculty with earned masters and higher degrees and the number of tests in the registered nurse licensure examination on which the school means exceeded the state means was also examined (Table 5-8).

Table 5-8. Associate Degree Nursing Programs Reporting Percent of Total Faculty with Masters or Higher Degrees, by Number of Tests in the Examination for Registered Nurse Licensure (1964-1965) on Which School Means Exceeded State Means
(N=85)

Number of Tests* on Which School Means Exceeded State Means	Percent of Faculty							
	Less than 40		40 - 79		80 or more		Total	
	No.	%	No.	%	No.	%	No.	%
1	2	11	7	18	5	19	14	16
2 - 3	4	22	8	20	6	22	18	21
4 - 5	1	6	9	22	7	26	17	20
None	11	61	16	40	9	33	36	42
Total	18	100	40	100	27	100	85	100

* Tests include: medical nursing, surgical nursing, obstetric nursing, nursing of children, and psychiatric nursing.

Although the cross-tabulations involved educational characteristics of faculties employed in 1967 and mean scores obtained on the registered nurse licensure examination for 1964-1965, it was assumed that these faculty characteristics did not differ appreciably from those of faculties who taught during the candidates' own learning experiences as students.

On a descriptive level of analysis, it can be noted that, within each of the groups, the highest single proportion of programs failed to report any mean scores exceeding those of the state. Within the group of 18 programs with less than 40 percent of the faculty holding at least a masters degree, 4 programs reported school means higher than state ones on 2 or 3 tests. Among the 40 programs with 40 to 79 percent of the faculty so prepared, 9 programs reported exceeding the state means on 4 or 5 tests. In programs where 80 percent of the faculty had such preparation, 7 exceeded state means on 4 or 5 tests.

However, when the 85 programs are considered as a whole, without regard to proportion of faculty with a masters or a higher degree, it can be seen that over half reported school means exceeding state means on at least 1 test.

Degree Major

The degree major for each faculty member, including the director, was requested. The responses related not only to degree major but, in some instances, also to area of study in nursing or other disciplines (Table 5-9). Whenever more than one major was indicated, the first one mentioned was accepted as the response.

Table 5-9. Total Faculty and Administrators in Associate Degree Nursing Program, by Degree Major

Major	Number of Programs*	Administrators (N=201)		Total Faculty** (N=1,391)	
		No.	%	No.	%
Nursing	138	49	24	522	37
Nursing education	70	31	16	178	13
Education	79	31	16	143	10
Administration	64	54	27	78	6
Clinical area of study reported					
Medical and surgical nursing	48	7	3	118	8
Psychology or psychiatry (Nursing specified or not)	51	3	1	68	5
Maternal and child health	41	4	2	62	4
Public health	26	2	1	31	2
Other	45	9	4	71	5
No response	41	11	5	120	9
Total		201	100	1,391	100

* For total faculty only.

** Includes administrators.

Accordingly, more than a third of the total faculty reported "nursing," without specification, as a degree major. About one quarter of the group indicated preparation in "education" or "nursing education." Study areas reported in diminishing frequency by nearly one fifth of the total group were medical and surgical nursing, psychology or psychiatry, maternal and child health, and public health. Five percent of faculty members reported majors in other disciplines such as English, the social sciences, economics, speech, and literature. No information was given for 120 teachers representing 41 different programs.

A difference in the distribution of responses was noted for administrators, with 27 percent reporting a major in administration, and close to that proportion indicating a major in "nursing" without specification. Nearly one third of the group referred to "nursing education" or "education" as their major.

The lack of specificity for the category "nursing," involving 522 faculty members and reference to study area as well as degree major, do not permit a true delineation of area of specialization. The variation in responses and the small size of some faculties suggest the demand for "cross-teaching," regardless of area of specialization.

Formal Preparation for Community College Teaching

It has been pointed out that teachers for junior colleges are usually recruited from other positions and, therefore, have not had much opportunity to study the program's unique purposes and problems in advance.[2] This is particularly true for teachers in nursing programs in these colleges. In existence only a decade and a half, these programs, of necessity, must recruit faculty who were prepared to teach in other types of programs and possess varying kinds and lengths of experiences. Furthermore, the supply of individuals specifically prepared for teaching in associate degree programs is limited by the relatively small number of graduate programs in certain parts of the country offering such preparation, and the relatively short periods of time such programs have been in existence. According to 1967 NLN figures, only nine universities were offering such programs.

Information was therefore requested about the number of teachers formally prepared to function in the academic setting of the community college. Excluded as "formal preparation" were lectures or workshops, if indicated.

The findings presented in Table 5-10 indicate that 992 of 1,391 faculty members lacked such formal preparation. For a minimum of 123 programs, this included the administrators.

Table 5-10. Total Faculty and Administrators in Associate Degree
Nursing Programs, by Formal Preparation to Teach
in Community Colleges

Formal Preparation	Number of Programs*	Administrators (N=201)		Total Faculty (N=1,391)	
		No.	%	No.	%
Yes	99	68	34	271	19
No	181	123	61	992	71
No response	30	10	5	128	9
Total		201	100	1,391	100

* For total faculty only.

The proportion of faculty members formally prepared to teach in community colleges was calculated for each program that provided this information for every member listed. As Table 5-11 shows, the largest single group of programs, 32, reported that 15 to 29 percent of faculty members were so prepared.

In almost half of all the programs, not a single faculty member, including the administrator, was specifically prepared for community college teaching. In one fifth of all programs were 30 percent or more of faculties so prepared.

Table 5-11. Associate Degree Nursing Programs, by Percent of Total Faculty Reporting Formal Preparation to Teach in Community Colleges
(N=201)

Percent Total Faculty	Programs	
	No.	%
None	87	43
1 - 14	9	4
15 - 29	32	16
30 - 44	12	6
45 - 59	7	3
60 - 74	13	6
75 or more	10	5
Not codable*	31	16
Total	201	100

* No response or response not indicated for every member of a given faculty.

Relationship to NLN Assistance. The relationship between the proportion of faculty members prepared for community college teaching and early consultative assistance from NLN was examined for 170 programs, grouped as shown in Table 5-12.

Table 5-12. Associate Degree Nursing Programs Reporting Percent of Total Faculty with Formal Preparation to Teach in Community Colleges, by Initial NLN Consultative Assistance
(N=170)

NLN Assistance	Percent of Faculty									
	None		Less than 30		30 - 59		60 or more		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Assisted	60	69	22	54	7	37	16	70	105	62
Not assisted	27	31	19	46	12	63	7	30	65	38
Total	87	100	41	100	19	100	23	100	170	100

On a descriptive level of analysis, it can be noted that 87 of the 170 programs reported none of their faculty members with such preparation. Among the three groups with some faculty members so prepared, two groups indicated that more than half of the programs had availed themselves of League assistance. The exception were the 19 programs with 30 to 59 percent of the faculty specifically prepared to teach in community colleges, of which 12 had not availed themselves of League assistance during their establishment.

Regional Distribution. The percentage of faculty with formal preparation to teach in community colleges seemed to be related to region. On a descriptive level of analysis again, it can be noted that when the 170 programs for which this relationship could be analyzed were grouped as shown in Table 5-13, 87 lacked any faculty

Table 5-13. Associate Degree Nursing Programs Reporting Percent of Total Faculty with Formal Preparation to Teach in Community Colleges, by NLN Region
(N = 170)

NLN Region	Percent of Faculty									
	None		Less than 30		30 - 59		60 or more		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
North Atlantic	18	21	11	27	5	26	4	17	38	22
Midwest	23	26	7	17	3	16	2	9	35	21
Southern	33	38	10	24	4	21	5	22	52	31
Western	13	15	13	32	7	37	12	52	45	26
Total	87	100	41	100	19	100	23	100	170	100

specifically prepared to teach on the associate degree level. The highest proportion of programs in this group were reported in the South. However, for every group representing an increasingly larger proportion of prepared faculty, the highest proportion of programs tended to be from the Western part of the country.

Relationship to Licensure Examination Scores. Analysis of the relationship between the proportion of faculty formally prepared for community college teaching and the number of tests in the registered nurse licensure examination on which school means exceeded state means was possible for 72 programs (Table 5-14). When these programs were grouped by percentage of faculty so prepared, 28 fell into the group with no prepared faculty at all. Twelve of the programs within this group reported no scores exceeding state means.

Table 5-14. Associate Degree Nursing Programs Reporting Percent of Total Faculty with Formal Preparation to Teach in Community Colleges, by Number of Tests in the Examination for Registered Nurse Licensure (1964-1965) on Which School Means Exceeded State Means
(N = 72)

Number of Tests*	Percent of Faculty									
	None		Less than 30		30 - 59		60 or more		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
1	8	29	3	14	2	20	1	8	14	19
2 - 3	3	11	3	14	3	30	6	46	15	21
4 - 5	5	18	3	14	2	20	2	15	12	17
None	12	43	12	57	3	30	4	31	31	43
Total	28	100	21	100	10	100	13	100	72	100

* Tests include: medical nursing, surgical nursing, obstetric nursing, nursing of children, and psychiatric nursing.

Similarly, among the 21 programs with less than 30 percent of the faculty so prepared, 12 programs also had means with values below those of the state. The remaining two groups reported higher proportions of prepared faculty members but involved only a few programs. Without consideration of the proportion of faculty formally prepared for community college teaching, more than half of the programs reported scores that exceeded state means on at least one test.

EXPERIENTIAL BACKGROUND

Findings concerning the past teaching and clinical experiences of faculty members are presented in this section.

Teaching Experience

Before assuming their present positions, faculty members had had previous teaching experience of varied duration, ranging from none to over 18.6 years. The distribution in Table 5-15 shows no teaching experience at all for 21 percent of the total faculty; this lack seemed most pronounced in the part-time group. Reported by a quarter of the total group was a teaching experience of 1 to 3.5 years. Among the administrators, an almost equal proportion had taught between 6.6 to 9.5 years. Four administrators, however, reported no teaching experience at all.

Table 5-15. Administrators, Full-time, and Part-time Faculty Members in Associate Degree Nursing Programs, by Years of Teaching Experience Prior to Present Position

Number of Years	Administrators* (N=201)		Full-time Faculty (N=1,088)		Part-time Faculty (N=102)		Total Faculty (N=1,391)	
	No.	%	No.	%	No.	%	No.	%
No experience	4	2	249	23	37	36	290	21
Less than 1	0	0	14	1	1	1	15	1
1 - 3.5	32	16	297	27	23	22	352	25
3.6 - 6.5	29	14	179	16	20	20	228	16
6.6 - 9.5	46	23	114	10	4	4	164	12
9.6 - 12.5	35	17	71	7	1	1	107	8
12.6 - 15.5	26	13	29	3	1	1	56	4
15.6 - 18.5	9	4	16	1	1	1	26	2
18.6 or more	14	7	13	1	0	0	27	2
No response	6	3	106	10	14	14	126	9
Total	201	100	1,088	100	102	100	1,391	100

* Includes 192 full-time, 8 part-time administrators; also, 1 administrator without employment-time classification.

In general, although the majority of the administrators had less than 9.6 years of experience, the remainder of the faculty most often had less than 3.6 years. The achievement of educational goals in associate degree programs seems to rest with a more "seasoned" administrators' and a relatively inexperienced instructors' group.

Determination of the proportion of inexperienced or neophyte teachers per faculty offers additional information about the academic "balance" of given faculties. These percentages, too, were calculated only for those faculties providing the necessary information for every one of their members (Table 5-16).

Fifty-five of the programs had faculties, all of whose members had had some teaching experience. Thirty-eight programs reported less than a quarter of their faculty withour previous teaching experience; 41 programs had between a quarter and 49 percent of their faculty lacking such experience; and, in 25 of the programs, half or more of the faculty had done no previous teaching.

Table 5-16. Associate Degree Nursing Programs,
by Percent of Total Faculty without
Previous Teaching Experience
(N=201)

Percent of Faculty	Programs	
	No.	%
None	55	27
1 - 24	38	19
25 - 49	41	20
50 or more	25	12
Not codable*	42	21
Total	201	100

* No response or response not indicated for every member of a given faculty.

Thus, at least one third of the programs functioned with 25 percent or more of their teachers totally lacking in teaching experience.

Relationship to Program Age. For 159 programs it was possible to relate the proportion of inexperienced faculty members to the years a program had been in existence. On a descriptive level of analysis, it can be noted that when these programs were grouped as shown in Table 5-17, 93 reported less than 25 percent of their instructors as lacking in teaching experience. Of these programs, more than half were less than 3 years old. The 66 programs with the higher proportion of inexperienced faculty members were unevenly distributed as far as age was concerned.

Table 5-17. Associate Degree Nursing Programs Reporting Percent of Faculty
Members without Previous Teaching Experience, by Age of Program
(N=159)

Age of Program	Percent of Faculty					
	25% or more		Less than 25%*		Total	
	No.	%	No.	%	No.	%
Less than 3 years	21	32	49	53	70	44
3 - 4	16	24	20	22	36	23
5 - 6	12	18	10	11	22	14
7 or more	17	26	14	15	31	19
Total	66	100	93	100	159	100

*Includes programs that reported entire faculty had previous teaching experience.

Twenty one of the programs in this group were less than 3 years old, but the next largest number, 17, had been in existence for 7 years or longer.

These findings point toward the prevalence of newly established programs and also suggest that, either by design or by reality of available faculty, they are more likely to employ smaller proportions of inexperienced instructors than are the older, more established ones.

Relationship to Licensure Examination Scores. The relationship between the proportion of inexperienced members on given faculties and the number of tests in the registered nurse licensure examination on which school means exceeded state means was also examined (Table 5-18). The 67 programs that lent themselves to descriptive analysis were nearly evenly divided: 33 programs with 25 percent or more and 34 programs with less than 25 percent of inexperienced faculty members.

Table 5-18. Associate Degree Nursing Programs Reporting Percent of Faculty Members without Previous Teaching Experience, by Number of Tests in the Examination for Registered Nurse Licensure (1964-1965) on Which School Means Exceeded State Means (N=67)

Number of Tests**	Percent of Faculty					
	25% or more		Less than 25% *		Total	
	No.	%	No.	%	No.	%
1	5	15	5	15	10	15
2 - 3	9	27	7	21	16	24
4 - 5	5	15	8	24	13	19
None	14	42	14	41	28	42
Total	33	100	34	100	67	100

* Includes programs that reported entire faculty had previous teaching experience.

** Tests include: medical nursing, surgical nursing, obstetric nursing, nursing of children, and psychiatric nursing.

Similar distributions can be noted for each group. In each, the largest number of programs, 14, did not report school means that exceeded those of the state for any test. Most of the remaining programs in each group had school means that did exceed state means on 2 to 5 tests.

Thus, as previously indicated, programs that varied in their faculty composition of experienced versus inexperienced teachers tended to be differentiated by the program age factor. They seemed to be fairly alike, however, in terms of reported tests on the nurse licensure examination on which their school means either did or did not exceed those of their respective states.

Nursing Experience

Although 3 percent of all faculty members had had limited or no clinical nursing experience at all, the most frequently reported length of such experience was 1 to 3.5 years for the total faculty and all its subgroups (Table 5-19). More than half the total group, however, had been active in clinical nursing up to 9.6 years, and the remaining faculty, particularly the administrators' group, considerably longer. The picture presented is one of variety in length of experience, implying varying degrees of faculty familiarity with the nursing process and the environment in which it is carried out.

Table 5-19. Administrators, Full-time, and Part-time Faculty Members in Associate Degree Nursing Programs, by Years of Nursing Experience

Number of Years	Administrators* (N=201)		Full-time Faculty (N=1,088)		Part-time Faculty (N=102)		Total Faculty (N=1,391)	
	No.	%	No.	%	No.	%	No.	%
No experience	0	0	27	2	1	1	28	2
Less than 1	1	+	14	1	2	2	17	1
1 - 3.5	42	21	301	28	30	29	373	27
3.6 - 6.5	37	18	209	19	18	18	264	19
6.6 - 9.5	25	12	125	11	11	11	161	12
9.6 - 12.5	34	17	132	12	8	8	174	12
12.6 - 15.5	29	14	72	7	3	3	104	7
15.6 - 18.5	4	2	25	2	3	3	32	2
18.6 or more	22	11	61	6	4	4	87	6
No response	7	3	122	11	22	22	151	11
Total	201	100	1,088	100	102	100	1,391	100

* Includes 192 full-time, 8 part-time administrators; also, 1 administrator without employment-time classification.

+Less than 1 percent.

FACTORS RELATED TO THE WORKING SITUATION

It is generally assumed that the policies of a community college as a whole also hold for the nursing unit of that institution, and that these policies are reflected in such factors as academic rank, salary determinants, and participation in college affairs, among others. This section presents findings in relation to these factors, as reported for faculty members of nursing units and, in the case of salary determinants, in comparison with the college faculty as a whole. Factors that specifically characterize the working conditions of faculty members of the nursing program, such as length of time on present faculty and teaching load, are also discussed.

Academic Rank

For an indication of existing ranking policies, if any, for faculty members in the nursing programs, information about their official titles was requested (Table 5-20).

Seven hundred and thirty-nine of 1,391 nursing program faculty were ranked as instructors, and an additonal 38 as assistant instructors. Among the remaining faculty members, the largest number, 196, were directors and an almost equally large number, 179, were assistant professors. No titles were given for 145 faculty members, representing 126 programs. The data thus indicate that the majority of educators in associate degree nursing programs applied themselves to the major task of "instructing." To what extent these figures imply the absence of a system of rank for some of the reporting colleges, or failure of nursing program faculty members to have achieved higher academic rank as yet, cannot be determined from these data. Information presented later in the chapter suggests that 50 percent of the programs consider academic rank to be a salary determinant for all faculty members of the institution.

Table 5-20. Total Faculty Reported in Associate Degree Nursing Programs, by Title of Faculty Member
(N=1,391)

Title	Number of Programs	Faculty	
		No.	%
Director	196	196	14
Assistant director	6	6	+
Professor	3	8	+
Associate professor	20	53	4
Assistant professor	54	179	13
Instructor	165	739	53
Assistant instructor	15	38	3
Lecturer	2	13	1
Other	11	14	1
No response	126	145	10
Total		1,391	100

+ Less than 1 percent.

Table 5-21. Total Faculty Reported in Associate Degree Nursing Programs, by Years on Present Faculty
(N=1,391)

Number of Years	Number of Programs	Faculty	
		No.	%
Less than 1 year	88	207	15
1 - 2	185	653	47
3 - 4	104	243	17
5 - 6	58	97	7
7 - 8	35	62	4
9 - 10	20	29	2
11 or more	26	33	2
No response	15	67	5
Total		1,391	100

Length of Time on Present Faculty

The length of time a faculty member has been part of a given faculty depends upon the number of years the program itself has been in existence and on the stability of the educator on that faculty. The recent proliferation of associate degree programs, particularly over the past few years, points toward short time periods, as reflected in Table 5-21.

Nearly two thirds of the total faculty had held their present positions for less than 3 years; 15 percent for less than a year. The remainder of the faculty had held their present positions for 3 years or longer. For 67 of the educators, this information was not made available.

Nearly all the programs represented in this tabulation reported some faculty members who had been on the faculty for less than 3 years.

Salary Determinants

No attempt was made to obtain information about salary ranges for all faculty members in community colleges and to compare differences, if any, between faculty in the nursing program and those in comparable programs in the college. However, an indication of existing differences in salary determinants was requested, with specific reference to educational preparation, formal and clinical teaching experience, academic rank, evaluation of teaching performance, research activity, and publications.

Table 5-22 presents the determinants for nursing and other college faculties, arranged by decreasing frequency of mention.

Table 5-22. Associate Degree Nursing Programs Indicating Faculty Salary-Determinants, by Nursing and Other College Faculty
(N=201)

Faculty	Salary Determinant															
	Educational Preparation		Teaching Experience, Formal		Academic Rank		Evaluation Teaching Performance		Teaching Experience, Clinical		Research Activity		Publications		Other	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Nursing and other faculty	173	86	163	81	100	50	88	44	50	25	28	14	28	14	27	13
Nursing faculty, only	15	7	16	8	10	5	16	8	83	41	2	1	2	1	5	2
Other faculty, only	6	3	7	3	9	4	3	1	3	1	14	7	15	7	3	1
Not indicated	7	3	15	7	82	41	94	47	65	32	157	78	156	78	166	83
Total	201	100	201	100	201	100	201	100	201	100	201	100	201	100	201	100

The great majority of all programs seemed to consider educational preparation and formal teaching experience as across the board determinants. Half the programs viewed academic rank as a salary determinant for faculty generally, but most of the remaining programs failed to indicate this as a factor at all.

Similarly, 44 percent of the programs considered evaluation of teaching performance as a determinant for faculty from nursing and comparable programs, while a somewhat larger proportion again failed to indicate this for either group.

Forty-one percent of the programs reported clinical teaching experience to be a significant factor in determining nursing salaries only. In an additional quarter of the programs, such experience was also considered significant for other than nursing faculty. The remaining third omitted any reference to clinical experience as a salary determinant. A majority of programs also omitted any indication of research and publications activities as salary determinants. Among additional salary determinants reported for nursing and other faculty groups were "community involvement," "leadership," "voluntary service," "personal and professional growth."

Differences in one or more salary determinants for nursing in contrast to other college faculties were reported by a majority of the programs, as shown in Table 5-23. However, such differences were primarily in the area of clinical teaching experience.

Table 5-23. Associate Degree Nursing Programs, by Indication of Differences in One or More Salary Determinants for Nursing and Other College Faculties
(N=201)

Indication of Differences	Programs	
	No.	%
Differences indicated	111	55
Differences not indicated	87	43
Not codable	3	1
Total	201	100

Thus, so far as salary determination for nursing and other faculties was concerned, more programs seemed to consider educational preparation and formal teaching experience rather than academic rank, evaluation of teaching performance, clinical teaching experience, research, and publication activities as essential factors in salary determinations.

Committee Participation

Adjustment to teaching in an associate degree nursing program is a many-faceted process. It entails, in the case of the nurse faculty in particular, an understanding of the program's philosophy and all its ramifications; a teaching experience in a new educational environment, possibly under faculty shortage conditions; and participation in an educational process that differs from traditional patterns in nursing education. In addition, it requires development of the interpersonal and intra-group relationships with the rest of the college community that contribute to teacher function, performance, and thus achievement.

While it was not the intent of this survey to analyze existing relationships among faculty in associate degree programs, an indication of joint participation in at least one facet of general faculty affairs was sought. The respondents were, therefore, asked to indicate the incidence of nurse faculty participation on college standing committees. Table 5-24 shows the frequency distribution of standing committees of the college as reported by nursing programs, with 44 percent indicating 4 to 9 such committees and an almost equal proportion 10 or more.

The proportion of these committees with nurse faculty representation is shown in Table 5-25. Sixty-nine nursing programs reported representation on 25 to 49 percent of these committees, with an additional 43 programs indicating nurse participation on 50 to 74 percent of the committees. Only small numbers of programs had nurse faculty members on all standing committees or on none.

In evaluating the significance of these figures, it must be pointed out that nurse representation on 50 percent of the standing committees when there are only 4 such committees connotes a different impact on joint efforts by nursing and other faculties than does representation on 50 percent of the standing committees, when there are 10 such committees.

Table 5-24. Associate Degree Nursing Programs, by Number of Standing Committees in the College
(N=201)

Number of Committees	Programs	
	No.	%
None	2	1
1 - 3	10	5
4 - 9	88	44
10 - 15	51	25
16 - 21	18	9
22 or more	17	8
No response	15	7
Total	201	100

Table 5-25. Associate Degree Nursing Programs, by Percent of College Standing Committees with Nurse Faculty Representation
(N=201)

Percent of Committees	Programs	
	No.	%
None	10	5
1 - 24	32	16
25 - 49	69	34
50 - 74	43	21
75 - 99	12	6
100	17	8
No response, not codable	18	9
Total	201	100

Teaching Assignment

An individual's teaching load depends mainly upon the number of credit hours she teaches per semester or quarter, the number of members on a given faculty, the possible requirement to prepare for and teach in unrelated subject fields, and degree of engagement in professional activities other than teaching. For faculties in community college nursing programs, particularly newly established ones, the teaching load is also affected by involvement in the development of the curriculums and teaching methodologies characteristic of these programs.

For an indication of faculty teaching assignments, a sampling of hours spent in classroom and clinical teaching was requested for the week of February 27, 1967. Although the general assumption of a "norm" in teaching conditions was made, several factors must be kept in mind in the interpretation of these findings: the possibility of "seasonal" or curriculum unit variations in teaching assignments such as "between quarter time"; modifications in unit placement; time spent in auditing, giving examinations, and ill-time reported as not teaching; curriculum development, team teaching, project involvement, lack of records, omission of response, vacations, and simply the lack of a teaching assignment for the designated week.

In the presentation of the data, class laboratory and clinical laboratory teaching hours were combined. Tabular data are presented for administrators, full-time and part-time faculty separately, and for the faculty group as a whole.

The number of classroom teaching hours, as shown in Table 5-26, ranged from none for 25 percent of the total group to 7 hours or more for 2 percent of the faculty. Nearly three quarters of the part-time faculty, approximately a third of the administrators, and a fifth of the full-time faculty fell into the nonteaching category. More than half of the total faculty group, administrators, and full-time faculty, but not part-time faculty, spent from 1 to 4 hours in formal classroom teaching during the designated week.

Table 5-26. Administrators, Full-time, and Part-time Faculty Members in Associate Degree Nursing Programs, by Number of Teaching Hours in the Classroom
Week of February 27, 1967

Number of Hours	Administrators* (N=201)		Full-time Faculty (N=1,088)		Part-time Faculty (N=102)		Total Faculty (N=1,391)	
	No.	%	No.	%	No.	%	No.	%
None	68	34	213	20	72	71	353	25
1	22	11	92	8	7	7	121	9
2	45	22	154	14	4	4	203	15
3	17	8	209	19	8	8	234	17
4	23	11	160	15	4	4	187	13
5	6	3	100	9	1	1	107	8
6	4	2	60	5	2	2	66	5
7 or more	6	3	26	2	0	0	32	2
Not codable	3	1	14	1	1	1	18	1
No response	7	3	60	5	3	3	70	5
Total	201	100	1,088	100	102	100	1,391	100

* Includes 192 full-time, 8 part-time administrators; also, 1 administrator without employment-time classification.

By comparison, Table 5-27 shows that the number of laboratory teaching hours during the same week ranged from none to over 30. The largest single group, close to a third of the total faculty, reported 10 to 14 laboratory teaching hours, and 69 percent, the majority, 1 to 19 hours. More than 10 percent of the total faculty taught 20 hours or longer in the clinical or class laboratory.

The increase of laboratory over classroom teaching hours did not generally hold true for the administrators' group,

Table 5-27. Administrators, Full-time, and Part-time Faculty Members in Associate Degree Nursing Programs, by Number of Laboratory Teaching Hours
Week of February 27, 1967

Number of Hours	Administrators* (N=201)		Full-time Faculty (N=1,088)		Part-time Faculty (N=102)		Total Faculty (N=1,391)	
	No.	%	No.	%	No.	%	No.	%
None	110	55	73	7	12	12	195	14
1 - 4	17	8	6	1	7	7	30	2
5 - 9	25	12	128	12	16	16	169	12
10 - 14	28	14	350	32	37	36	415	30
15 - 19	6	3	320	29	17	17	343	25
20 - 24	5	2	113	10	6	6	124	9
25 - 29	0	0	12	1	0	0	12	1
30 or more	0	0	4	+	0	0	4	+
Not codable	3	1	22	2	4	4	29	2
No response	7	3	60	5	3	3	70	5
Total	201	100	1,088	100	102	100	1,391	100

+Less than 1 percent.

* Includes 192 full-time, 8 part-time administrators; also, 1 administrator without employment-time classification.

of whom 55 percent indicated no laboratory teaching activity for the designated time period. Approximately one third of this group, however, spent up to 15 hours teaching in this area.

Since the above data relate to individual teaching assignments, it was of interest to determine how this factor of teaching activity was reflected for faculties as individual groups. Tables 5-28 and 5-29 present the percentages of full- and part-time faculties engaged in classroom and laboratory teaching during the designated week. The administrators are included in either the full- or part-time groups, depending upon their employment-time classification. Percentages were determined separately for each group if pertinent information was available for all full-time and all part-time teachers on a given faculty.

The largest single group of the programs, 67, reported that all their full-time faculty members engaged in classroom teaching during the designated week. Another 46 of the programs indicated such activity for 80 to 99 percent of their faculty. Smaller percentages of full-time faculty engaged in teaching were reported by the remaining programs.

So far as the teaching activities of part-time faculty are concerned, the proportions could not be calculated for 135 of the programs, either because they had no part-time faculty, did not respond, or did not provide the required information for all part-time faculty members. Among the remaining programs, 42 reported no part-time faculty engaged in formal classroom teaching, while 20 others reported all their part-time faculty so involved.

Eighty-one programs reported that all members of their full-time faculty were engaged in laboratory teaching during the designated week (Table 5-29). In another 67 programs, 80 to 99 percent of the faculty members were so involved.

Table 5-28. Associate Degree Nursing Programs, by Percent of Full-time and by Percent of Part-time Faculty Involved in Classroom Teaching*
Week of February 27, 1967
(N=201)

Percent Full-time Faculty	Programs		Percent Part-time Faculty	Programs	
	No.	%		No.	%
None	1	+	None	42	21
1 - 49	19	9	1 - 49	1	+
50 - 59	14	7	50 - 99	3	1
60 - 69	28	14	100	20	10
70 - 79	12	6			
80 - 89	41	20			
90 - 99	5	2			
100	67	33			
Not codable**	14	7	Not codable**	135	67
Total	201	100	Total	201	100

+ Less than 1 percent.

* Administrators are included in both full-time and part-time categories, depending upon their employment-time classification.

** No response, response not indicated for every member of a given faculty, or no part-time teachers on faculty.

Table 5-29. Associate Degree Nursing Programs, by Percent of Full-time and by Percent of Part-time Faculty Involved in Laboratory Teaching*
Week of February 27, 1967
(N=201)

Percent Full-time Faculty	Programs		Percent Part-time Faculty	Programs	
	No.	%		No.	%
Less than 60	9	4	None	10	5
60 - 79	30	15	1 - 49	2	1
80 - 99	67	33	50 - 99	2	1
100	81	40	100	52	26
Not codable**	14	7	Not codable**	135	67
Total	201	100	Total	201	100

* Administrators are included in both full-time and part-time categories, depending upon their employment-time classification.

** No response, response not indicated for every member of a given faculty, or no part-time teachers on faculty.

For part-time faculty, again, proportions could not be calculated for 135 programs but, among the remaining ones, 52 indicated laboratory teaching involvement of all part-time faculty members.

In essence, differences in faculty utilization were evident in the teaching activities of administrators, full-time and part-time teachers for the designated week. A greater number of hours seemed to be spent in laboratory than in formal classroom teaching, with part-time faculty most involved in the former, and the administrators' group more likely to be doing the latter.

SUMMARY

Two hundred and one associate degree nursing programs reported a total of 1,391 faculty members, including administrators. Of the total group, 1,280 were full-time and 110 part-time employees. The total number of faculty members per program ranged from 2 to 46.

About two thirds of all faculty members had earned the masters degree. However, the per faculty percentage distribution of teachers so prepared varied, ranging from none to 100 percent. Approximately one quarter of the programs, the single highest proportion, indicated that 60 to 79 percent of their faculty members had educational preparation beyond the bachelors degree.

Formal preparation for teaching in community colleges was reported for about one fifth of the total faculty, and for approximately a third of the administrators as a separate group. However, almost half of the programs had no faculty members specifically prepared for community college teaching.

Administrators were generally more "experienced" in terms of length of previous teaching experience, compared to the relatively "inexperienced" instructors' group. While the majority of the former had less than 9.6 years of experience, the majority of the remainder of the faculty had less than 3.6 years of experience. A third of the programs functioned with 25 percent or more of faculty members lacking any previous teaching experience. So far as previous nursing experience was concerned, the majority of the total faculty had had less than 9.6 years of such experience.

The relatively short experiental background in teaching was also reflected in the length of time faculty members had been part of their respective groups. For approximately two thirds of the faculty, this amounted to less than 3 years, suggesting a turnover factor in addition to one of program age and expanding faculties.

For the determination of faculty salaries in nursing and comparable programs within the college, the majority of programs considered factors such as educational preparation and formal teaching experience. Only half the programs reported academic rank as a salary determinant, with successively fewer considering evaluation of teaching performance and research and publications activities as determinants. Clinical teaching experience was seen most often as a salary determinant for nursing faculty only.

Serving as an example of participation in general college affairs was the percentage of nurse faculty represented on college standing committees. Nurse faculty representation on less than 50 percent of such committees was reported by a majority of the programs.

Teaching assignments for a designated week varied among the programs, revealing differences in the utilization of administrators', full-time, and part-time faculties' services. The number of classroom teaching hours ranged from none to over 7 hours, depending upon employment-time classification and, as in the case of administrators, position. An increase of laboratory over class instruction was reflected in a range of none to over 30 hours spent in laboratory teaching, with the highest proportion of faculty members, excluding the administrators, spending 10 to 14 hours in this activity during the designated week. A majority of the administrators did not participate in laboratory teaching activities.

In general, smaller full-time faculties were identified with programs in the South, larger ones with programs in the West. Similar regional distributions were noted for faculty members who had earned a masters or a higher degree, with smaller proportions so prepared more apt to be found in the South and larger ones in the Western and North Atlantic regions.

Programs with higher proportions of faculty members who had earned the masters or a higher degree more often indicated that the school mean scores their graduates had earned on the licensure examination exceeded those of the state on 4 or 5 tests; those with the lowest proportions of faculty so prepared more often reported exceeding state means on 2 or 3 tests. Regardless of preparation of faculty, earned schools means reported by the highest proportion of programs in each group did not exceed those of the state on any of the 5 tests.

Formal preparation of faculty to teach on the associate degree level was often lacking. Such preparation tended to be nonexistent most often among faculties in the South, more prevalent in the West. Programs with larger proportions of faculty so prepared reported most frequently that their school means exceeded state means on 2 or 3 tests in the registered nurse licensure examination. When less than 30 percent of the faculty had such preparation, school means reported by approximately half of such programs did not exceed those of the state on any of the tests on the examination.

On the whole, programs that had less than 25 percent of faculty members without teaching experience tended to be less than three years old. Those with 25 percent or more of inexperienced instructors were more evenly divided among programs of various ages.

However, regardless of proportion of inexperienced faculty per roster, there seemed to be little difference among programs in the proportion of tests on which the school means did or did not exceed those of the state in the nurse licensure examination.

REFERENCES

[1] Wilfrid J. Dixon and Frank J. Massey, Jr. Introduction to Statistical Analysis. 2d ed. New York, McGraw-Hill, 1957. pp. 221-226.

[2] James W. Thornton, Jr. The Community Junior College. 2d. ed. New York, John Wiley and Sons, 1960. p. 137.

CHAPTER VI

THE STUDENTS

The selection, retention, and graduation of sufficient numbers of nursing students is imperative if escalating demands for nursing manpower services are to be met. The accessibility of "doorstep" community colleges contributes to the achievement of these goals by providing members of the community, other than the young and unmarried constituting the "usual" college population, with the tangible means to continue their education.

It was, therefore, of interest to determine some of the characteristics that distinguish the students who attend these programs. The information requested related to their demographic characteristics, application-interaction, and withdrawal behavior. Data were also requested as to the housing accommodations of residents--that is, whether they lived on campus or in off-campus approved housing.

Application-interaction is defined as the developmental process comprising application, qualification, acceptance or rejection phases, and culminating either in admission to a nursing program, rejection by it, or the rejection of a program by an applicant.

DEMOGRAPHIC CHARACTERISTICS

This section deals with the age and marital status of these students, as well as the distribution among the reporting programs of students in campus-sponsored housing. The findings are presented for the group as a whole and, in some instances, for male and female students separately.

One hundred and ninety-two programs reported a total enrollment of 12,548 students, of whom 449 were male and 12,099 were female. Two additional programs only supplied total enrollment figures.

For the presentation of age and marital status findings, proportions were calculated from the number of students for whom such characteristics were reported, without regard to the year of enrollment. As can be noted these figures were smaller than the total enrollment figures reported by the respondents.

Age

Nearly half of all the reported students were less than 20 years old and an additional 28 percent were between 20 and 24 years of age (Table 6-1). The remainder were 25 years or older, the highest proportion being in their thirties. Seven percent were 40 years of age or older.

Because of the overwhelming proportion of female students, figures representing their age characteristics approximate those for the group as a whole. The 417 male students, however, were somewhat older than their female counterparts, with only 8 percent under 20 years of age, in contrast to 47 percent of the female students in that age group. The highest single proportion of male students, more than a third of the group, were 20 to 24 years of age. Although a majority of the students of both sexes were 20 years or older, proportionately, a greater number among the male than among the female group fell into the "older" categories.

Marital Status

Nearly three quarters of the total student group for whom marital status was reported were single, although there was a sharp difference between male and female students in this respect (Table 6-1). The men were evenly divided into married and single (48 percent each), whereas 71 percent of the women were single, and 26 percent married. Much smaller percentages in both groups were either widowed or divorced: 4 percent of the male students, and 3 percent of the females and of the student group as a whole.

Table 6-1. Students Reported by Associate Degree Nursing Programs, by Demographic Characteristics
January, 1967

Demographic Characteristics	Programs	Male Students (N=417)		Programs	Female Students (N=11,501)		All Students (N=11,918)	
Age	No.	No.	%	No.	No.	%	No.	%
Less than 20 years	30	34	8	187	5,459	47	5,493	46
20 - 24	67	147	35	182	3,222	28	3,369	28
25 - 29	69	111	27	166	871	8	982	8
30 - 39	48	83	20	170	1,198	10	1,281	11
40 or more	29	42	10	154	751	6	793	7
Total*		417	100		11,501	100	11,918	100
		(N=414)			(N=11,270)		(N=11,684)	
Marital Status	No.	No.	%	No.	No.	%	No.	%
Single	87	197	48	183	7,963	71	8,160	70
Married**	86	200	48	184	2,927	26	3,127	27
Widowed/divorced	15	17	4	122	380	3	397	3
Total*		414	100		11,270	100	11,684	100
		(N=449)			(N=12,099)		(N=12,548)	
Housing	No.	No.	%	No.	No.	%	No.	%
Living on campus or in off-campus approved housing	22	60	13	88	2,926	24	2,986	24

* Some of the programs did not indicate demographic characteristics for all the students reported as enrolled. This accounts for discrepancies between total enrollment and total breakdown figures.

** One program reported widowed and divorced students with married ones.

Table 6-2. Associate Degree Nursing Programs, by Total Number of Students Living on Campus or in off-Campus Approved Housing
(N=201)

Number of Students	Programs	
	No.	%
None	76	38
1 - 9	18	9
10 - 19	24	12
20 - 29	12	6
30 - 39	9	4
40 - 49	9	4
50 or more	17	8
No response	36	18
Total	201	100

Housing

As a "doorstep" facility, the community college is generally expected to serve the needs of the community in which it is located and, therefore, to draw its student body from individuals residing within the community and not requiring campus living accommodations. A total of 2,986 students in associate degree nursing programs, however, were reported to live on campus or in off-campus approved housing (Table 6-1). They represented 13 percent of the 449 male students and 24 percent of the 12,099 female students reported as enrolled.

Table 6-2 reflects the number of students per program in officially designated college residences. They ranged from none for 38 percent of the programs, the highest proportion, to 50 or more for 8 percent of the programs.

Inconclusive as these findings are, they nevertheless indicate that a large percentage of students in associate degree nursing programs live in college-sponsored housing. The underlying reasons for this fact might well include the attraction of these programs for individuals who are not residents of the community.

APPLICATION-INTERACTION

The selection, retention, and rejection of nursing aspirants by nursing programs depends upon the dyadic "behavior" of program and applicant. In the case of the former, school philosophy, established standards, avail-

Table 6-3. Associate Degree Nursing Programs, by Number of Applicants to the Program in 1966, Number of Applicants Qualified for Admission, Number of Applicants Accepted, Number of Applicants Admitted, and Number of Applicants Rejected
(N=201)

Number of Applicants* to Nursing Program	Programs		Number of Applicants Qualified for Admission	Programs		Number of Applicants Accepted	Programs		Number of Applicants Admitted	Programs		Number of Applicants Rejected	Programs	
	No.	%		No.	%		No.	%		No.	%		No.	%
Less than 50	29	14	Less than 25	14	7	None	1	+	None	1	+	None	13	6
50 - 99	58	29	25 - 49	65	32	1 - 24	19	9	1 - 19	18	9	1 - 9	23	11
100 - 149	45	22	50 - 74	41	20	25 - 49	84	42	20 - 39	78	39	10 - 29	64	32
150 - 199	20	10	75 - 99	34	17	50 - 74	50	25	40 - 59	51	25	30 - 49	25	12
200 or more	31	15	100 - 124	13	6	75 - 99	23	11	60 - 79	27	13	50 - 69	14	7
			125 or more	11	6	100 or more	12	6	80 - 99	9	4	70 - 89	10	5
									100 or more	10	5	90 or more	28	14
No response, or not codable	18	9	No response, or not codable	23	11	No response, or not codable	12	6	No response, or not codable	7	3	No response, or not codable	24	12
Total	201	100	Total	201	100	Total	201	100	Total	201	100	Total	201	100

+Less than 1 percent.

* Includes estimates.

ability of facilities, and other pragmatic considerations such as faculty, finance, and personal factors play an important part in the selection of applicants for admission. Applicant behavior, although greatly dependent upon the action of the school, is also conditioned by personal preference, ultimate career decision, and other contributing circumstances.

For an indication of the process of mutual selectivity that eventually unites student and program, information was requested concerning the number of individuals who, in 1966, 1) applied for admission to each associate degree nursing program, 2) qualified for admission, 3) were accepted if qualified, 4) were admitted if accepted, or 5) were denied admission.

The numbers of students per program reported for each of these groups are shown in Table 6-3. Since records of application are not always kept, respondents were requested to give an estimate of the applicants to their programs if exact figures were not available. The information for this group, therefore, includes absolute and estimated figures. As such it reflects a number of applicants to associate degree nursing programs, ranging from fewer than 50 to more than 200 per program, with the highest proportion of programs reporting 50 to 99 applicants.

These numbers fell off considerably during the application-interaction or mutual selectivity process, as shown by the number of applicants who eventually were admitted.

The percentages of applicants qualifying for admission, accepted if qualified, admitted if accepted, and rejected are presented in Table 6-4. The calculations reflect the figures in Table 6-3.

Table 6-4. Associate Degree Nursing Programs, by Percent of Applicants Qualified for Admission in 1966, Percent of Applicants Accepted of Those Qualified, Percent of Applicants Admitted of Those Accepted, and Percent of Applicants Rejected
(N=201)

Percent of Applicants Qualified for Admission	Programs		Percent of Applicants Accepted of Those Qualified	Programs		Percent of Applicants Admitted of Those Accepted	Programs		Percent of Applicants Rejected	Programs	
	No.	%		No.	%		No.	%		No.	%
Less than 40	30	15	Less than 60	17	8	Less than 80	38	19	None	12*	6
40 - 59	60	30	60 - 79	30	15	80 - 89	39	19	1 - 9	10	5
60 - 79	55	27	80 - 99	46	23	90 - 99	55	27	10 - 19	28	14
80 - 99	26	13	100	81	40	100	53	26	20 - 29	37	18
100	6	3	100 or more	4	2				30 - 39	19	9
									40 - 49	24	12
									50 - 59	13	6
									60 or more	32	16
Not codable	24	12	Not codable	23	11	Not codable	16	8	Not codable	26	13
Total	201	100	Total	201	100	Total	201	100	Total	201	100

* Figure does not correspond with that in Table 6-3 (13) since number of applicants to one nursing program was not indicated and program was classified in the "not codable" category.

Qualified

The proportion of applicants who qualified for admission varied from less than 40 to 100 percent of those who applied. Among the responding programs the highest single number of programs, 60, considered 40 to 59 percent qualified for admission.

The proportions of applicants considered qualified for admission were examined in relation to formal preparation of program director to teach in community colleges.

In every group as shown in Table 6-5, the majority of programs were represented by directors who lacked such preparation. Differences in the size of such majorities, however, can be noted.

Table 6-5. Associate Degree Nursing Programs Reporting Percent of Applicants Qualified for Admission, by Formal Preparation of Director to Teach in Community Colleges
(N=168)

Preparation of Director	Percent of Applicants									
	Less than 40		40 - 59		60 - 79		80 or more		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Prepared	14	48	22	39	10	19	13	43	59	35
Not prepared	15	52	35	61	42	81	17	57	109	65
Total	29	100	57	100	52	100	30	100	168	100

For example, of the 29 programs reporting less than 40 percent qualified applicants, approximately half did not have directors formally prepared to teach on the associate degree level. Of the 52 programs reporting that they considered 60 to 79 percent of applicants as qualified for admission, more than three quarters had directors who fell into the same category.

Table 6-6. Associate Degree Nursing Programs Reporting Percent of Applicants Qualified for Admission, by NLN Region
(N=177)

NLN Region	Percent of Applicants									
	Less than 40		40 - 59		60 - 79		80 or more		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
North Atlantic	5	17	13	22	15	27	5	16	38	22
Midwest	7	23	15	25	8	15	12	37	42	24
Southern	5	17	13	22	25	45	9	28	52	29
Western	13	43	19	32	7	13	6	19	45	25
Total	30	100	60	100	55	100	32	100	177	100

*NLN Region I (North Atlantic) Conn., Del., D.C., Me., Mass., N.H., N.J., N.Y., Pa., R.I., Vt.
Region II (Midwest) Ill., Ind., Iowa, Kan., Mich., Minn., Mo., Neb., N.D., Ohio, S.D., Wis.
Region III (Southern) Ala., Ark., Fla., Ga., Ky., La., Md., Miss., N.C., Okla., Puerto Rico, S.C., Tenn., Tex., Va., Virgin Islands, W.Va.
Region IV (Western) Alaska, Ariz., Calif., Colo., Guam, Hawaii, Idaho, Mont., Nev., N.M., Ore., Utah, Wash., Wyo.

The relationship between programs reporting varying proportions of qualified applicants who were admitted as students and region was examined for 177 programs as shown in Table 6-6.

Thirty of these programs reported less than 40 percent of the applicants as qualifying. Nearly half of the programs in this group were located in the West and close to one quarter in the Midwest. At the other extreme, of the 32 programs that considered at least 80 percent of applicants as qualified for admission, more than a third were in the Midwest and more than a quarter were in the South. The 60 programs that considered 40 to 59 percent of applicants as qualified were more evenly distributed, but with a somewhat higher proportion, close to a third, again, in the West. Among the 55 programs that considered 60 to 79 percent of applicants as qualified, close to half were in the South, and more than a quarter in the North Atlantic region.

Accepted

In relation to the percentage of those qualifying who were accepted, Table 6-4 shows a range from less than 60 to 100 percent or more. The largest single group of programs, 81, accepted all qualified applicants, with an additional four programs going beyond that point, possibly accepting applicants they did not consider qualified.

Admitted

Although the proportions of the accepted applicants who were admitted were high, ranging from less than 80 to 100 percent, only about one quarter of the programs admitted all of the candidates they had accepted. An almost equal proportion admitted between 90 and 99 percent of accepted candidates. The reasons for this phenomenon cannot be gleaned from these data but previous findings support the existence of a selectivity factor on the part of the student, based on either change in career decision, preference of one program over another, or other personal factors.[1]

Table 6-7. Associate Degree Nursing Programs Reporting the Three Most Frequent Reasons Why Applicants Were Denied Admission to the Program in 1966, by Reason for Action
(N=201)

Reason	Sequence of Reasons					
	First Reason		Second Reason		Third Reason	
	No.	%	No.	%	No.	%
Low academic standing	94	47	36	18	13	6
Low pre-entrance test score	36	18	51	25	12	6
Lack of academic qualifications	12	6	19	9	10	5
Insufficient facilities	8	4	4	2	3	1
Insufficient faculty	4	2	2	1	1	+
Limitation of class size	5	2	2	1	2	1
Personal factors	2	1	22	11	32	16
Non-specific	15	7	7	3	4	2
Miscellaneous	9	4	5	2	11	6
No response	16	8	53	26	113	56
Total	201	100	201	100	201	100

+Less than 1 percent.

Rejected

The data did provide information about the reasons for the programs' denial of admission to a considerable proportion of applicants. The range ran from rejection of no applicants by 12 programs to rejection of 60 percent or more by 32 programs (Table 6-4).

In specifying reasons for rejection, a successively smaller number of programs gave second and third reasons, as reflected in Table 6-7. However, this is due, in part, to the fact that the same reason, if offered more than once by a given program, was accepted only once as the response for the first reason.

As their major reason for rejecting an applicant, the majority of the programs identified education-related factors such as low academic standing, low pre-entrance test scores, and lack of academic qualifications such as chemistry, mathematics, and so on. Despite the often expressed need for additional faculty and facilities, few programs indicated insufficient facilities, insufficient faculty, and purposeful limitation of class size as their major reason for denying admission to some applicants.

Although the order of categories was reversed for the second reason given, a majority of rejections were still made on the basis of academic performance, with 25 percent of the programs indicating low pre-entrance test scores. The most frequently reported third reason included personal factors, such as immaturity, health, overweight, disability, and the like.

STUDENT WITHDRAWALS

Student attrition, costly both in terms of loss of potential nurses as well as in effort and finance expended, is a matter of concern in relation to the general efforts to increase the nation's nursing force.

This section presents the information on student withdrawals from ADN programs for various reasons. The findings are based on data submitted by differing numbers of programs and relate only to first-year students for the academic year 1965-1966. Excluded from the data presentation are programs for which 1965-1966 or the succeeding academic year was the first academic year. The rationale for this omission lies in the consideration of a program's first academic year as different, in terms of stability and functioning, from later years when the program is less recently established, and from programs in existence for a longer period of time.

Established reasons for withdrawals included: scholastic failure, marriage and pregnancy, transfer to other programs (nursing or non-nursing), and a variety of miscellaneous reasons submitted by the respondents.

The percentages of withdrawals for given reasons were calculated only for programs that had submitted an accurate breakdown in withdrawals, based on the total withdrawal figure given. Since a number of programs either failed to do this or had no withdrawals for a given reason, the total number of responding programs varies considerably for each reason.

As background for the presentation of data concerning withdrawals, Table 6-8 indicates the total enrollment figures of first-year students during the academic year 1965-1966. Broken down by enrollment per program, the figures show that 22 percent of all the programs enrolled 20 to 39 students, another 18 percent, 40 to 59 students.

A total of 5,589 first-year students were reported enrolled. Of these 2,052 (36.71 percent) withdrew during the year.

The percentage of total withdrawals of first-year students in individual programs are shown in Table 6-9. They range from less than 20 to more than 60 percent of these students. Among programs for which percent of withdrawals was indicated, the largest number, 27, had a 30 to 39 percent rate of student withdrawal, followed by 23 programs with a 40 to 49 percent rate, and another 20 programs with one of 20 to 29 percent. Percent withdrawals could not be calculated for 90 programs that failed to respond or were initiated during 1965-1966 or later.

Table 6-8. Associate Degree Nursing Programs, by Total Enrollment of First-Year Students (1965-1966)
(N = 201)

Number of Students	Programs No.	Programs %
Less than 20	5	2
20 - 39	43	22
40 - 59	36	18
60 - 79	17	8
80 or more	10	5
No response, not codable *	90	44
Total	201	100

* Includes 84 reporting programs initiated during 1965-1966 and 1966-1967.

Table 6-9. Associate Degree Nursing Programs, by Percent Total Withdrawals of First-Year Students (1965-1966)
(N = 201)

Percent Withdrawals	Programs No.	Programs %
Less than 20	15	7
20 - 29	20	10
30 - 39	27	13
40 - 49	23	11
50 - 59	16	8
60 or more	10	5
No response, not codable *	90	44
Total	201	100

* Includes 84 reporting programs initiated during 1965-1966 and 1966-1967.

Tables 6-10 through 6-14 offer a more detailed look at the proportions of students who withdrew for the variety of reasons mentioned earlier.

Scholastic Failure

As shown in Table 6-10, in 97 programs the percentage of withdrawals due to scholastic failure ranged from less than 9 to over 41 percent. Nearly one third of the group had a 17 to 24 percent withdrawal rate for this category

Table 6-10. Associate Degree Nursing Programs,
by Percent Withdrawals of
First-Year Students Due to
Scholastic Failure (1965-1966)
(N = 97)*

Percent Withdrawals	Programs	
	No.	%
Less than 9	13	13
9 - 16	23	24
17 - 24	30	31
25 - 32	17	18
33 - 40	7	7
41 or more	7	7
Total	97	100

* Does not include programs that were initiated during 1965-1966 or later.

Table 6-11. Associate Degree Nursing Programs,
by Percent Withdrawals of
First-Year Students Due to
Marriage and Pregnancy (1965-1966)
(N = 70)*

Percent Withdrawals	Programs	
	No.	%
Less than 3	15	21
3 - 8	49	70
9 - 14	5	7
15 or more	1	1
Total	70	100

* Does not include programs that were initiated during 1965-1966 or later.

and approximately one quarter of the programs had a 9 to 16 percent withdrawal rate due to scholastic failure. For almost a third of the group the withdrawal rate for this reason was 25 percent or higher.

Marriage and Pregnancy

Marriage and pregnancy as a reason for withdrawal was indicated by 70 programs (Table 6-11), with from less than 3 to over 15 percent of the students withdrawing for this reason. In nearly three quarters of the programs, 3 to 8 percent of the first-year students left because of marriage or childbearing. The withdrawal rate for these reasons was under 3 percent for most of the remaining programs.

Transfer to Non-nursing Programs

Table 6-12 reflects the loss to nursing of first-year students who transferred into other, non-nursing programs. Here, too, the withdrawal rate ranged from under 3 to over 15 percent. As with marriage and pregnancy attrition, more than half of the 54 programs reporting withdrawals for purposes of transfer to other, non-nursing programs indicated that 3 to 8 percent of their students had apparently changed their minds about a nursing career. In another 11 programs, 9 to 14 percent of the students had done likewise.

Table 6-12. Associate Degree Nursing Programs,
by Percent Withdrawals of First-Year Students
Due to Transfer to Other Programs,
Not Nursing (1965-1966)
(N = 54)*

Percent Withdrawals	Programs	
	No.	%
Less than 3	9	17
3 - 8	31	57
9 - 14	11	20
15 or more	3	6
Total	54	100

*Does not include programs that were initiated during 1965-1966 or later.

Transfer to Other Nursing Programs

Only 38 programs, as shown in Table 6-13, submitted information about transfers of first-year students to other nursing programs. Within a range of from less than 3 to over 9 percent, 26 of the programs reported a 3 to 8 percent attrition rate for this reason, followed by another 10 programs whose withdrawal rates were less than 3 percent. Although it might be assumed that these students do not constitute a loss to the nursing profession, no data are available indicating the type of program to which the students transferred.

Miscellaneous Reasons

A considerable number of programs (73) gave a variety of other reasons for first-year student attrition, among

Table 6-13. Associate Degree Nursing Programs, by Percent Withdrawals of First-Year Students Due to Transfer to Other Nursing Programs
(1965-1966)
(N = 38)*

Percent Withdrawals	Programs	
	No.	%
Less than 3	10	26
3 - 8	26	68
9 or more	2	5
Total	38	100

* Does not include programs that were initiated during 1965-1966 or later.

them, illness, personal problems, and reason unknown (Table 6-14). Withdrawal proportions in this instance ranged from less than 5 to over 21 percent, 35 programs indicating a 5 to 12 percent loss of nursing aspirants for these miscellaneous reasons. Fully a third of the group had a withdrawal rate of 13 percent or higher in this category.

Table 6-14. Associate Degree Nursing Programs, by Percent Withdrawals of First-Year Students Due to Miscellaneous Reasons
(1965-1966)
(N = 73)*

Percent Withdrawals	Programs	
	No.	%
Less than 5	14	19
5 - 12	35	48
13 - 20	19	26
21 or more	5	7
Total	73	100

* Does not include programs that were initiated during 1965-1966 or later.

As a group, the students who withdrew tended to do so mainly for scholastic reasons, with diminishing proportions leaving to marry, bear children, seek other careers, or change programs. A number left for miscellaneous reasons.

SUMMARY

A total of 12,548 students, of whom 449 were male and 12,099 were female, were enrolled in 192 associate degree nursing programs as of January, 1967.

Nearly half of all the students for whom age was indicated were less than 20 years old. Although a majority of students of both sexes were therefore 20 years or older, proportionately more men than women fell into the higher age groups.

Nearly three quarters of all students were single, although proportionately more male than female students were married.

A total of 2,986 students, of whom 60 were male, were reported to live on campus or in off-campus approved housing.

The number of individuals who were admitted to ADN programs in 1966 was smaller than the number who applied, as a result of a mutual selectivity process on the part of programs and applicants. One major factor was the denial of admission to applicants because of academic insufficiencies.

The proportion of applicants considered qualified to enter the program varied with the individual programs and was associated with the region in which the program was located. Thus, programs that considered smaller proportions of applicants as qualifying for admission tended to be in the West, while those indicating larger proportions of acceptable applicants were more prevalent in the Midwest and the South.

Further reduction in numbers of individuals enrolled in ADN programs was brought about by the withdrawal from the programs of considerable proportions of students because of scholastic failure, marriage and pregnancy, transfer to other programs, both nursing and non-nursing, and a variety of other reasons.

In keeping with the findings of other investigators, ADN programs seem to attract a student group that can be characterized as somewhat older and comprising a larger proportion of male and married students than other academic programs in nursing.[2] The data also indicate that a number of these students lived on campus or in off-campus approved housing. Although the program seems to engender interest as an educational approach to nurse licensure and attracts a number of applicants, a mutual selectivity process, involving applicant, program, and student, as well as regional differences seem to reduce the number of potential nurse graduates considerably.

REFERENCES

[1] Sylvia Lande. "Factors Related to Perception of Nurses and Nursing and Selection or Rejection of Nursing as a Career Among Seniors in Roman Catholic High Schools in New York City." Unpublished doctoral project. New York, Teachers College, Columbia University, 1964. pp. 127-131.

[2] National League for Nursing. The Nurse Career-pattern Study Biographical Data Reported by Entering Students, Fall, 1965. New York, the League, 1968.

CHAPTER VII

STUDENT PROGRESSION

To learn about some of the standards that relate to expectations for student advancement in associate degree nursing programs, the respondents were asked to indicate what evidence of capability was required for admission to nursing and other instructional programs in the college; determinants for student grades; the grade point average required for promotion and graduation; and the scale used for determination of the grade point average.

Since education for nursing in community colleges includes clinical practice in varying numbers of cooperating institutions, the diversity of the latter and some of their underlying policies as these affect the shared responsibility to advance the student through this part of her educational experience were also considered. Information was, therefore, sought about: 1) the number of cooperating institutions providing clinical experience for nursing courses; 2) the type of cooperating institutions providing these experiences; 3) the incidence of cooperating institutions with whom the college had written contacts or agreements concerning expected learning experiences for nursing students; 4) the incidence of contracts in which learning experiences are actually stated; and 5) the incidence of contractual arrangements in which the responsibility for student learning in the clinical area is placed with the college faculty.

An additional factor for consideration was the distance between the home college and the cooperating institutions since time spent traveling might be assumed to reduce time spent in educational pursuits. It was also presumed that the reported distances would indicate the availability of indigenous resources in the communities in which the programs were offered. Questions asked, therefore, related to the number of cooperating institutions not considered to be within walking distance of the college, and the distance in miles at which the closest and furthest of these institutions were located.

EVIDENCE OF CAPABILITY FOR ADMISSION

Approximately three-quarters of the programs indicated differences in one or more admission criteria between the nursing and other instructional units in the college, as shown in Table 7-1.

Table 7-1. Associate Degree Nursing Programs, by Indication
of Differences in Admission Criteria for Students
in the Nursing and Other Programs in the College
(N = 201)

Indication of Differences	Programs	
	No.	%
Differences indicated	146	73
Differences not indicated	55	27
Total	201	100

Table 7-2 represents the variety of factors reported as required evidence of capability for admission to the nursing and other programs in the school.

For nursing and other programs combined, successively smaller proportions of programs considered high school graduation, physical examinations, achievement tests, aptitude tests, high school grade point average, minimum high school standing, personal interviews, and personality inventories as such evidence. A considerable proportion of programs mentioned other admission determinants instead of or in addition to those already indicated. They included: class or seminar participation, self-evaluation, projects, written assignments, and attendance records.

The programs indicating that these requirements apply only to nursing increased the proportions of nursing programs seeking evidence of capability for admission in terms of all the factors mentioned. This is particularly true for personal interview, physical examination, high school grade point average, and high school graduation.

Table 7-2. Associate Degree Nursing Programs Reporting Evidence of Capability Required for Admission to the College, by College Program (N=201)

College Program	Required Capability																	
	High School Graduation		Physical Examination		Achievement Test		Aptitude Test		High School Grade Point Average		Minimum High School Standing		Personal Interview		Personality Inventory		Other	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Nursing and other programs	143	71	121	60	85	42	79	39	55	27	38	19	32	16	10	5	43	21
Nursing only	37	18	67	33	20	10	28	14	55	27	24	12	120	60	17	8	12	6
Other programs only	3	1	0	0	4	2	1	+	1	+	21	10	1	+	0	0	3	1
Not indicated	18	9	13	6	92	46	93	46	90	45	118	59	48	24	174	87	143	71
Total	201	100	201	100	201	100	201	100	201	100	201	100	201	100	201	100	201	100

+Less than 1 percent.

DETERMINANTS FOR STUDENT GRADES

The respondents indicated a variety of factors related to the determination of student grades (Table 7-3).

Table 7-3. Associate Degree Nursing Programs Reporting Determinants for Student Grades, by Indication of Use of Determinant (N=201)

Indication of Use	Determinant for Student Grades									
	Scores Teacher-Made Tests		Scores Standardized Tests		Performance Evaluation Instructor		Performance Evaluation Nursing Personnel		Other	
	No.	%	No.	%	No.	%	No.	%	No.	%
Use indicated	196	98	25	12	184	92	11	5	26	13
Use not indicated	5	2	176	88	17	8	190	95	175	87
Total	201	100	201	100	201	100	201	100	201	100

Mentioned by practically all programs were scores from teacher-made tests. Almost as many respondents referred to performance evaluation by instructors. Only 25 programs reported scores from standardized tests, and only 11 programs performance evaluation by nursing personnel as factors considered in the determination of student grades.

REQUIRED GRADE POINT AVERAGE

A scale value of 4 was reported by more than half of the programs as used in the determination of grade point averages (Table 7-4). Another 14 percent indicated the use of lower values, and 6 percent indicated higher values than 4. Other responses related to percent averages, grades, and the like.

Table 7-4. Associate Degree Nursing Programs, by Scale Used in the Determination of the Grade Point Average (N=201)

Grade Point Average Scale	Programs No.	Programs %
Less than 3	14	7
3	14	7
4	121	60
5 or more	12	6
Other	4	2
No response	36	18
Total	201	100

Although no specific information about the scale classification itself was requested, it might be assumed that some programs, using a 4 point scale, designated letter grades, such as A, B, C, and D, or descriptive ratings such as Excellent, Good, Passing, and Failing.

The procedure to determine the grade point average for the corresponding value on the scale is not standardized. Generally each letter grade or descriptive rating is equivalent to a number of credit points and has a corresponding weight which is arbitrarily assigned. For example, a letter grade of A may have a weight of 4. Each letter grade is multiplied by its weight, the weighted products are added, and then divided by the number of points the letter grades represent.

An example is given below:

	Number of points of each letter grade		Multiplied by weight of letter grade	Weighted product
A	4	×	4	16
B	3	×	3	9
C	5	×	2	10
D	0	×	1	0
	12			35

The weighted total divided by the total number of points gives the weighted average which corresponds to a classification on the scale used by a given program. In the example cited, 35 divided by 12 equals 2.92 on the scale.

As can be seen in Table 7-5, nearly half of the programs reported a required grade point average of 2 to 2.4 for promotion, while approximately three quarters of the group required the same average for graduation. Greater variation in grade point average requirements for promotion than for graduation can be noted in the distributions for both.

Table 7-5. Associate Degree Nursing Programs Reporting Grade Point Average Required for Promotion and for Graduation, by Grade Point Average
(N=201)

Grade Point Average	Educational Progression			
	Promotion		Graduation	
	No.	%	No.	%
None	2	1	0	0
1 - 1.4	13	6	9	4
1.5 - 1.9	24	12	7	3
2.0 - 2.4	98	49	145	72
2.5 or more	6	3	11	5
Miscellaneous	30	15	19	9
No response	28	14	10	5
Total	201	100	201	100

A number of responses, classified under miscellaneous, gave evidence of requirements other than those listed or of their use in varying ways. For example, some programs had different grade point average requirements for different semesters: e.g., 1.0 for the first semester, 2.0 for the second. Other programs had different grade point requirements for the courses in nursing (2.0) and for general education courses (1.5). (The question did not elicit whether different grade point averages were required in other programs of study for major and nonmajor courses.) Still others indicated percentages or grades rather than a grade point average, as requested.

COOPERATING INSTITUTIONS

Number per Program

The number of cooperating institutions that provided clinical experiences for a given program ranged from fewer than 6 to more than 18 (Table 7-6). Close to half of the programs reported the involvement of 6 to 11 cooperating institutions, with another third indicating fewer numbers. Almost a quarter of the reporting programs, however, utilized 12 or more such community resources for the provision of the required clinical experiences.

As indicated in Table 7-7, the relationship between number of cooperating institutions and the size of the student enrollment is not necessarily a direct one. For example, among the programs utilizing fewer than 6 cooperating institutions, 29 percent had an enrollment of 20 to 39 students; close to one quarter of the group had 40 to 59 students enrolled; and a fifth of the group had an enrollment of 60 to 79 students. Fully 17 percent of these programs had a student enrollment of 80 or more.

Of the 31 programs utilizing 12 to 17 cooperating institutions, close to one quarter had student enrollments of 40 to 59 students, a fifth of the group had 20 to 39 students enrolled, while only 10 percent had an enrollment of 120 or more. These findings are similar to those for programs using only 6 to 11 cooperating institutions, the highest proportion of this group of programs also indicating an enrollment of 40 to 59 students, with 11 percent counting 120 or more candidates on their student rosters.

The relationship between number of cooperating institutions used and student enrollment cannot be taken at face value, however, since the type of cooperating institution could appreciably influence the number used by a given program. For example, the doctor's office is usually set up to accommodate only a few students at any given time and several doctors' offices may be utilized to provide this type of experience for all the students in a given class.

Table 7-6. Associate Degree Nursing Programs, by Number of Cooperating Institutions Providing Clinical Experience for Nursing Courses
(N=201)

Cooperating Institutions	Programs	
	No.	%
Less than 6	66	33
6 - 11	87	43
12 - 17	32	16
18 or more	16	8
Total	201	100

Table 7-7. Associate Degree Nursing Programs Reporting Number of Cooperating Institutions Utilized, by Student Enrollment
January 1967
(N=194)

Student Enrollment	Number of Cooperating Institutions									
	Less than 6		6 - 11		12 - 17		18 or more		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Less than 20	7	11	4	5	1	3	1	7	13	7
20 - 39	19	29	19	23	6	19	3	20	47	24
40 - 59	15	23	24	29	7	23	3	20	49	25
60 - 79	13	20	14	17	5	16	5	33	37	19
80 - 99	5	8	9	11	5	16	1	7	20	10
100 - 119	5	8	4	5	4	13	2	13	15	8
120 or more	1	1	9	11	3	10	0	0	13	7
Total	65	100	83	100	31	100	15	100	194	100

Types

Table 7-8 indicates the types of institutions utilized for students' clinical experience, and the incidence of use of each type per program.

Serving as clinical laboratories were general and psychiatric hospitals, schools, doctors' offices, public

Table 7-8. Associate Degree Nursing Programs Reporting Type of Cooperating Institutions Providing Clinical Experience for the Nursing Program, by Number of Cooperating Institutions
(N=201)

Number of Cooperating Institutions*	Type of Cooperating Institution															
	Hospital, Psychiatric		Public Health Agency		Schools		Nursing Homes		Hospital, General		Doctors Office		Community Projects		Other	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1	152	76	70	35	55	28	48	24	44	22	32	16	20	10	49	24
2	8	4	18	9	20	10	7	3	61	30	8	4	10	5	11	5
3	0	0	3	1	13	6	5	2	45	22	17	8	2	1	1	+
4	0	0	1	+	13	6	0	0	34	17	7	3	0	0	1	+
5	0	0	1	+	3	1	0	0	7	3	6	3	0	0	2	1
6 or more	0	0	0	0	13	6	1	+	10	5	28	14	1	+	1	+
None indicated	41	20	108	54	84	42	140	70	0	0	103	51	168	84	136	68
Total	201	100	201	100	201	100	201	100	201	100	201	100	201	100	201	100

+Less than 1 percent.

* When only a check mark or "Yes" was indicated for a given type of cooperating institution, a minimum of 1 institution was assumed.

health agencies, nursing homes, and community projects--the type indicated least often. Other resources mentioned were a variety of day care centers, facilities for the handicapped, the mentally ill; the "Red Cross," nursing homes, and the county infirmary.

Varying proportions of the programs failed to indicate any association with specific types of cooperating institutions, the exception being the "general hospital," utilized by all programs. The general hospital also exceeded other cooperating institutions in numbers utilized by a given program. For example, the highest proportion of programs indicating the general hospital as a cooperating institution reported two such affiliations. By comparison, the highest proportions of programs reporting utilization of other types of institutions referred to only one for each type.

Contracts and Agreements

Table 7-9 reflects the proportions of cooperating institutions with which the reporting programs had established contracts or agreements. Less than a quarter of the group had made such arrangements with all of the institutions providing clinical experiences for their students, 27 percent with more than half, and 8 percent with half. Thirty-eight percent of the programs had contracts or agreements with fewer than half of these educational resources.

As an indication of the content of such agreements, the respondents were asked for the proportion of contracts in which the expected learning experiences for students were stated (Table 7-10).

Precisely half of the programs indicated that these experiences were spelled out in all of their contracts. A tenth of the group stated expected learning experiences in some, but not all, of their contracts, but more than a third of the programs did not include such provisions in any of their contracts or agreements.

Table 7-9. Associate Degree Nursing Programs, by Proportion of Cooperating Institutions with Written Contracts or Agreements
(N=201)

Proportion of Cooperating Institutions	Programs	
	No.	%
All	47	23
More than half	55	27
Half	17	8
Less than half	77	38
No response	5	2
Total	201	100

Table 7-10. Associate Degree Nursing Programs, by Proportion of Contracts or Agreements in Which the Expected Learning Experiences Are Stated
(N=201)

Proportion of Contracts or Agreements	Programs	
	No.	%
Stated for all contracts	101	50
Stated for some contracts	21	10
Not stated	76	38
No response	3	1
Total	201	100

Additional information was sought concerning the stipulations that college faculty bear the responsibility for student learning in clinical areas (Table 7-11).

Table 7-11. Associate Degree Nursing Programs, by Proportion of Contracts or Agreements in Which Responsibility for Student Learning in Clinical Areas Is Fixed with College Faculty
(N = 201)

Proportion of Contracts or Agreements	Programs	
	No.	%
Stated for all contracts	197	98
Stated for some contracts	4	2
Total	201	100

Almost without exception the reporting programs indicated that this was stipulated in all instances when contracts with cooperating institutions had been established. Only 4 programs said this was the case in some, but not all, of their contractual arrangements.

The findings, thus, reveal that students from a majority of the programs received their clinical experiences without the benefit of officially signed contracts between college and institutional representatives for all the cooperating institutions utilized. Even when contracts or agreements did exist, they did not, in all instances, state anticipated student learning experiences. This suggests that although responsibility for student learning experiences in clinical areas, at least in instances where contracts did exist, was fixed with the college faculty, the provision by cooperating institutions of opportunities for learning experiences suited to student needs is not necessarily assured.

Accessibility to Home School

Among the factors related to the cooperating institutions as educational facilities was their accessibility to the home school. Table 7-12 shows that only 3 programs utilized no affiliating institutions beyond walking dis-

Table 7-12. Associate Degree Nursing Programs, by Number of Cooperating Institutions Not Within Walking Distance of College (N = 201)

Number of Institutions	Programs	
	No.	%
None	3	1
1 - 3	63	31
4 - 6	40	20
7 or more	12	6
Not codable	79	39
No response	4	2
Total	201	100

Table 7-13. Associate Degree Nursing Programs, by Distance in Miles at Which Cooperating Institutions Closest to College, but Not Within Walking Distance, Are Located (N = 201)

Miles	Programs	
	No.	%
1 or less	24	12
1.1 - 5	98	49
5.1 - 9	34	17
9.1 - 13	16	8
13.1 or more	19	9
No response	10	5
Total	201	100

tance of the college. The remaining programs whose responses were codable indicated the use of 1 to 7 or more cooperating institutions that were not within walking distance. Close to a third of the programs used 1 to 3 institutions beyond walking distance.

The programs were also asked to indicate the distance from the college of the cooperating institution closest to the school but not within walking distance (Table 7-13), and of the one furthest from the school (Table 7-14). The closest-but-not-within-walking-distance facility ranged from under 1 to over 13.1 miles away from the school; the farthest ranged from under 10 to over 70 miles. Thus, students in the majority of programs were required to travel in order to reach some of their affiliating institutions. In the case of those facilities located closest to the college, students from more than half of the programs traveled 5 miles or less; to reach the cooperating institutions furthest from the college, students from a majority of programs were required to travel anywhere up to 30 miles.

How frequently the students had to travel these distances, what proportions of students were required to travel, and to what extent such traveling shortened the time designated for study cannot be determined from these data.

Table 7-14. Associate Degree Nursing Programs, by Distance in Miles at Which Cooperating Institutions Furthest from College, and Not Within Walking Distance, Are Located
(N=201)

Miles	Programs	
	No.	%
Less than 10	35	17
10 - 29	75	37
30 - 49	26	13
50 - 69	15	7
70 or more	28	14
No response	22	11
Total	201	100

SUMMARY

A variety of factors deemed relevant to student progression were explored.

It was found that greater proportions of nursing programs than those of comparable programs in the college required certain evidences of capability for admission.

For students in associate degree nursing programs, the grade determinants were based mainly on teacher-made tests and performance evaluations by college instructors.

The grade point average most often required for promotion and for graduation was between 2 and 2.4; the scale value used most often for this purpose was 4.

The number of cooperating institutions that participated in the educational preparation of the students ranged from less than 6 to over 18. Contracts or agreements were entered upon by individual programs with varying numbers of these institutions, generally fewer than the number utilized. When contracts or agreements did exist they did not always include expected student learning experiences. Responsibility for student learning in the clinical area was fixed with college faculty in nearly all contracts or agreements that were made.

Cooperating institutions varied in accessibility to the college, in terms of distance from it. Since some necessitated a considerable amount of traveling on the part of the students, the expenditure of time and effort for students and faculty beyond that expected in the utilization of resources within the college community itself is suggested.

CHAPTER VIII

STUDENT COSTS

With public tuition-free higher education becoming an increasingly rare phenomenon in the United States, and with the corollary growth and development of federal aid and other financially supportive programs for educational purposes, a number of questions were asked concerning the school expenditures of individual students and the financial aid provided them.[1]

Information was specifically requested about the average cost to one student graduating in 1967 for the entire nursing program, including tuition and other fees, room and board, and general expenditures, excluding personal expenses. Information about these findings is presented separately for each factor to permit more specific identification of individual expenditures.

Additional questions related to the source of payment for health maintenance and accompanying activities for the college students in general and for those in the nursing program in particular.

For information as to the number of students graduating in 1966 who had availed themselves of financial aid before graduation, the responding programs were asked to indicate how many of these students had received scholarships and loans, and to estimate the total amount of money involved in each of these categories. Since the respondents were not asked to name the sources of either loan or scholarship assistance to students, no differentiation between federal and nonfederal student aid could be made. In addition, it is possible that some students who received scholarships also borrowed funds under government or private loan programs and are therefore included in the data for both scholarships and loans.

Some respondents submitted ranges rather than absolute figures, or offered information for only part rather than for total course time. In order to use this information with as little distortion as possible, ranges were averaged, and figures submitted for a given part of the course were multiplied by the appropriate number of time units in order to obtain a total expenditure figure for the given factor.

In addition to the cost-ranges shown in Tables 8-1 through 8-6, the actual lowest and highest cost-figures for each item of expenditure are indicated in the text.

TUITION

Requests for information about total program tuition costs took into consideration the fact that some colleges differentiate, so far as tuition charge is concerned, between resident and nonresident students. ("Residency," in this instance, does not refer to on-campus living, but to established residence in the community or area officially served by a given institution.) The respondents were, therefore, asked to report charges either when cost was alike for all students in the college or when cost differed for the two groups of students.

These variations are reflected in Table 8-1, as reported by 101 programs that differentiated in their tuition charges and 47 programs that did not. The findings are based on responses from programs that had graduated a class in 1967.

Close to one quarter of the nondifferentiating programs had a tuition-free policy. Almost the same proportion of differentiating programs maintained a tuition-free policy for resident students. All the differentiating programs, however, charged tuition for nonresident students. The actual range of tuition costs, when the same charges were made for resident and nonresident students alike, was from as little as $60 to $4,425. When different charges were made, costs ranged between $50 and $2,450 for resident students and between $85 and $2,160 for nonresident students.

Thus, while a number of associate degree nursing programs still had tuition-free policies, the majority did not, showing considerable variation in their tuition charges. The findings also indicate that nonresident students would generally pay higher tuition costs than resident students in community colleges that differentiated between the two groups, and might pay still higher tuition fees in colleges that made no such differentiation. On the other hand, 23 percent of the latter group, those making no differentiation, offered the opportunity of a tuition-free education.

Table 8-1. Associate Degree Nursing Programs Reporting Average Individual Tuition Cost for a Student Graduated in 1967 When Cost Is Alike for All Students and When Cost Varies for Resident and Nonresident Students

Tuition, When Cost Is Alike for All Students	Programs (N=47)		Tuition Cost for Resident Students	Programs (N=101)		Tuition Cost for Nonresident Students	Programs (N=101)	
	No.	%		No.	%		No.	%
Tuition free	11	23	Tuition free	22	22	Tuition free	0	0
Less than $700	14	30	Less than $325	25	25	Less than $501	15	15
700 - 1,499	10	21	325 - 574	29	29	501 - 1,000	41	41
1,500 - 2,299	5	11	575 - 824	18	18	1,001 - 1,500	37	37
$2,300 or more	7	15	$825 or more	7	7	$1,501 or more	8	8
Total	47	100	Total	101	100	Total	101	100

SCHOOL FEES OTHER THAN TUITION

Table 8-2 presents the average individual school fees exclusive of tuition cost, such as testing, application, health maintenance fees, and others.

Table 8-2. Associate Degree Nursing Programs, by Average Individual School Fees Required of a Student Graduated in 1967 (N=152)

School Fees	Programs	
	No.	%
No fee	16	11
Less than $11	36	24
11 - 40	43	28
41 - 70	22	14
71 - 100	14	9
$101 or more	21	14
Total	152	100

Sixteen of the 152 responding programs indicated that they made no such charges at all. The majority of programs charged no more than $40 for these miscellaneous school fees, covering the entire period of study. The amount students actually had to pay in institutions with this requirement ranged from less than $2 to $415.

SCHOOL EXPENDITURES OTHER THAN FEES

One hundred and fifty-five programs that graduated a class in 1967 indicated average individual school expenditures, other than personal expenses, for their students. Such expenditures for uniforms, textbooks, laundry, and so on actually ranged from $31 to $650. As Table 8-3 shows, for the largest proportion of programs, school expenditures for an individual student's entire period of study were in the $200 to $299 bracket.

Table 8-3. Associate Degree Nursing Programs, by Average Individual School Expenditures Required of a Student Graduated in 1967*
(N=155)

School Expenditures	Programs	
	No.	%
Less than $100	12	8
100 - 199	54	35
200 - 299	63	41
300 - 399	21	13
$400 or more	5	3
Total	155	100

* Does not include tuition and other fees.

ROOM AND BOARD

The respondents were asked to indicate the total program cost, per 1967 graduate, for room and board, if these services were provided for some or all students, and to indicate "0" (zero) if there was no charge. Since the question did not elicit whether such services were actually provided by a given program, it is assumed that the programs with 1967 graduates that did not respond to this question either did not charge for room and board or did not offer one or both of these services. The distributions presented in Tables 8-4, 8-5, and 8-6, therefore, relate only to programs that indicated students' costs for either one or both of these services.

Room Only

Only 36 programs indicated the average individual student cost for room (Table 8-4). This actually ranged from $15 to $2,865, with half of the programs indicating an average room charge of $300 to $699.

Table 8-4. Associate Degree Nursing Programs, by Average Individual Cost for Room for a Student Graduated in 1967
(N=36)

Cost	Programs	
	No.	%
Less than $300	6	17
300 - 699	18	50
700 - 1,099	7	19
$1,100 or more	5	14
Total	36	100

Board Only

The 30 programs indicating their average individual charges for board reported an actual range of $430 to $1,984, with one program charging only $15. Indicated by half of the programs were costs between $600 and $999 for individual students (Table 8-5).

Table 8-5. Associate Degree Nursing Programs, by Average Individual Cost for Board for a Student Graduated in 1967
(N=30)

Cost	Programs	
	No.	%
Less than $600	4	13
600 - 999	15	50
1,000 - 1,399	7	23
$1,400 or more	4	13
Total	30	100

Room and Board Combined

Table 8-6 shows the combined average individual cost for room and board, including instances when only one of these charges was reported.

Table 8-6. Associate Degree Nursing Programs, by Average Individual Cost for Room and Board for a Student Graduated in 1967
(N=46)

Cost	Programs	
	No.	%
Less than $1,000	11	24
1,000 - 1,499	13	28
1,500 - 1,999	13	28
$2,000 or more	9	20
Total	46	100

So far as average individual cost for room and board was concerned, the programs were fairly evenly distributed among the various cost ranges shown in the table. Thus, 28 percent of the programs charged between $1,000 and $1,499 and an equal proportion charged from $1,500 to $1,999 for room and board combined. The students actually paid between $300 and $2,865 for these services, with one program indicating a low of $30.

PREVALENCE OF HEALTH POLICIES

It is generally assumed that programs of nursing education in community colleges will reflect the basic policies established for comparable programs in the school. Among these is maintenance of health, high on the list of priorities in traditional programs of nursing. The determination of the existence or absence of health policies for students in associate degree nursing programs was, therefore, a factor of interest not only in terms of prevalence but also in relation to source of payment for procedures and other activities related to such policies.

Table 8-7 reveals that 89 percent of the programs had health policies for their students, the vast majority in written form. More than a tenth of the programs, however, had neither written nor oral policies related to health maintenance.

Table 8-7. Associate Degree Nursing Programs, by Availability of Policies Related to Student Health
(N=201)

Health Policies	Programs No.	Programs %
Written	168	84
Oral	10	5
No policy	22	11
No response	1	+
Total	201	100

+Less than 1 percent.

HEALTH COSTS

The health maintenance costs about which the respondents were questioned concerned physical examinations, chest x-rays, immunization procedures, and health insurance. Table 8-8 indicates the sources of payment for these requirements, applicable to all students in the college.

Table 8-8. Associate Degree Nursing Programs Reporting Health Maintenance Requirements for All College Students, by Source of Payment
(N=201)

Source of Payment	Health Maintenance Requirements							
	Physical Examination		Chest X-ray		Immunization		Health Insurance	
	No.	%	No.	%	No.	%	No.	%
Student	150	75	86	43	85	42	54	27
School	4	2	8	4	2	1	1	+
Cooperating institution	0	0	2	1	1	+	0	0
Student and school	3	1	2	1	4	2	1	+
Student and cooperating institution	0	0	1	+	0	0	0	0
Student, school, and cooperating institution	0	0	0	0	0	0	1	+
Not indicated as required or no response	44	22	102	51	109	54	144	72
Total	201	100	201	100	201	100	201	100

+Less than 1 percent.

A considerable proportion of programs failed to indicate various factors as required or give the source of payment. Among the remaining programs, the highest proportions, in relation to each health measure cited, reported that responsibility for payment rested solely with the student. Only a few programs reported that the school, the cooperating institution, or both, shared in these expenses.

Thus, 75 percent of the programs indicated that the students throughout the institution paid for the required physical examination. In 43 percent of the programs, students also paid for chest x-rays; in 42 percent, for immunizations; and, in 27 percent, for health insurance.

While three quarters of the programs indicated the physical examination as a general requirement, much smaller proportions of programs designated the chest x-ray, immunizations, and health insurance as such.

In order to ascertain existing differences, if any, the respondents were asked to indicate which of the health maintenance requirements applied to nursing students only and, thus, were in addition to those required for the student body in general.

Table 8-9 suggests that differences existed among programs in terms of required health measures for students in the nursing program versus the student body as a whole. Again, the highest proportions of programs, representing nearly all those that reported special requirements for students in nursing programs, placed the responsibility for payment with the students. With the exception of the additional student-cost requirements for immunizations, indicated by forty-six percent of the programs, other such special cost requirements for nursing students alone were mentioned by considerably fewer respondents. Thus, the physical examination was reported as an additional requirement as well as expenditure for nursing students in 20 percent of the programs, chest x-rays in 34 percent, and health insurance in 5 percent.

Table 8-9. Associate Degree Nursing Programs Reporting Health Maintenance Requirements for Nursing Students Only or in Addition to Those Required for All College Students, by Source of Payment
(N=201)

Source of Payment	Health Maintenance Requirements							
	Physical Examination		Chest X-ray		Immunization		Health Insurance	
	No.	%	No.	%	No.	%	No.	%
Student	40	20	68	34	93	46	11	5
School	3	1	3	1	3	1	0	0
Cooperating institution	1	+	11	5	5	2	0	0
Student and cooperating institution	1	+	2	1	3	1	1	+
Student and school	0	0	0	0	2	1	0	0
School and cooperating institution	0	0	0	0	1	+	0	0
Not indicated as required or no response	156	78	117	58	94	47	189	94
Total	201	100	201	100	201	100	201	100

+Less than 1 percent.

Additional information was sought about sources of payment for medical and hospital care for students without health insurance. Table 8-10 presents this information, as reported by the respondents, for students in programs in the college other than nursing; Table 8-11 refers to students in the nursing program only. In both instances, large majorities of programs designated the students as financially responsible for the medical and hospital attention they received.

Table 8-10. Associate Degree Nursing Programs, by Source of Payment for Medical and Hospital Care for Students Without Health Insurance in Programs Other Than Nursing
(N=201)

Source of Payment	Programs	
	No.	%
Student	176	88
School	3	1
Student and school	2	1
No response	20	10
Total	201	100

Table 8-11. Associate Degree Nursing Programs, by Source of Payment for Medical and Hospital Care for Students Without Health Insurance in the Nursing Program Only
(N=201)

Source of Payment	Programs	
	No.	%
Student	174	87
School	3	1
Student and school	3	1
Student and cooperating institution	3	1
No response	18	9
Total	201	100

FINANCIAL AID TO STUDENTS

Table 8-12 shows 116 programs reporting a graduating class in 1966 and indicating the number of their 1966 graduates who received loan or scholarship assistance as students. Considerable proportions of programs did not provide either of these two sets of data.

Sixteen percent of the programs reported that none of their students had received any loans. Half as many programs responded similarly in reference to scholarships. The number of recipients of either type of student aid within individual programs ranged from 1 to 9 or more. Among programs with scholarship recipients, 27 percent indicated that 1 to 4 of their students had been awarded scholarships. An identically high proportion also reported that 1 to 4 of their students had availed themselves of loans. Forty-eight percent of the programs reported that some of their students had received loans, and 65 percent of the programs indicated that some of their students had received scholarships. As was pointed out earlier, students who had been awarded scholarships might also have been recipients of loans and may, therefore, have been included in both sets of data.

Table 8-12. Associate Degree Nursing Programs Reporting Loan and Scholarship Assistance to Students Graduated in 1966, by Number of Students (N=116)

Number of Students	Source of Financial Assistance			
	Loans		Scholarships	
	No.	%	No.	%
None	19	16	9	8
1 - 4	31	27	31	27
5 - 8	17	15	27	23
9 or more	7	6	17	15
No response	42	36	32	28
Total	116	100	116	100

The proportions of 1966 graduates per program who received financial aid as students are shown in Table 8-13.

Table 8-13. Associate Degree Nursing Programs Reporting Loan and Scholarship Assistance to Students Graduated in 1966, by Percent of Students (N=116)

Percent of Students	Source of Financial Assistance			
	Loans		Scholarships	
	No.	%	No.	%
Less than 11	12	10	19	16
11 - 30	24	21	27	23
31 - 50	13	11	19	16
51 or more	6	5	10	9
Not codable	61	53	41	35
Total	116	100	116	100

The established percentages for both loan and scholarship recipients ranged from less than 11 percent to over 51 percent of the 1966 graduates. Again, it must be pointed out that considerable proportions of programs did not provide the necessary information related to loan and scholarship aid.

Among the programs reporting loan recipients, approximately one fifth indicated that between 11 percent and 30 percent of the students had availed themselves of this type of student aid. Close to one quarter of the programs indicated an identical percentage range of students with scholarships.

Twenty-two percent of the programs, the highest proportion other than those that either could not or would not supply the data requested, reported a total student loan figure per program of $1,000 to $5,999 (Table 8-14). Total funds actually borrowed by students in individual programs ranged from $100 to $30,000.

Table 8-14. Associate Degree Nursing Programs, by Amount of Assistance for Loans and by Amount of Assistance for Scholarships to Students Graduated in 1966
(N=116)

Amount of Assistance for Loans	Programs		Amount of Assistance for Scholarships	Programs	
	No.	%		No.	%
No loans	19	16	No scholarships	9	8
Less than $1,000	18	16	Less than $1,000	32	28
1,000 - 5,999	25	22	1,000 - 1,999	19	16
6,000 - 10,999	6	5	2,000 - 2,999	9	8
$11,000 or more	3	3	$3,000 or more	15	13
No response	45	39	No response	32	28
Total	116	100	Total	116	100

In relation to scholarship assistance, 28 percent of the programs indicated total student scholarship assistance per program of less than $1,000. Total funds for scholarship awards to students in individual programs actually ranged between $100 and $16,652.

Since some programs failed to respond to the questions relating to financial assistance to students, it is possible that more students were recipients of such assistance than the available data indicate.

SUMMARY

In the majority of associate degree nursing programs, students paid varying tuition fees, particularly when existing policies differentiated between resident and nonresident students. In the majority of programs, too, the students were responsible for additional general fees and other miscellaneous expenditures.

The programs varied in their charges for room, board, or both. Students were almost universally expected to pay for health maintenance measures if the latter were requirements of the school or of the program they attended.

Less than half of the programs that had graduated a class in 1966 reported that some members of the graduating class had had loans as students; two thirds of the programs indicated that some had had scholarships. The proportions of eventual graduates reported by individual programs as recipients of either type of aid ranged from fewer than 11 percent to more than 51 percent.

REFERENCES

[1] James W. Thornton, Jr. The Community Junior College. 2d ed. New York, John Wiley and Sons, 1960. pp. 28-30.

CHAPTER IX

THE CURRICULUM

As the reflector of the governing philosophy and the expressed objectives of a given program, the curriculum represents one facet of the student-faculty-curriculum triad that is the underpinning of any educational program.

One of the most distinguishing characteristics of the associate degree program has been its conceptual approach in curriculum development. This has found expression in factors such as the provision of both general and specialized education; the sequential placement of courses for progression from simple to complex learning experiences; the avoidance of fractionalization of courses by grouping them on a thematic basis; the shortening of the nursing course by omission of repetitive experiences; and the involvement of faculty in the curriculum development process.

Such expression is influenced, however, by restraints imposed by the college, state licensing authorities, accrediting agencies, and community resources utilized, by the assumption of financial obligations for the nursing program by the college, and by the degree of creativity expressed by faculty members.

For an indication of program offered and composition of curriculums in associate degree nursing programs, the respondents were asked for information about length and type of program, credit requirements, weekly credit hour equivalents for class and laboratory study, and total number of clock hours required for class and laboratory instruction in each curriculum unit.

The information is presented separately for programs on semester and quarter bases. Clock hours spent in class laboratories and clinical laboratories have been combined for presentation since a number of the programs submitted the information in this form.

TYPE AND LENGTH OF PROGRAM

Eighty-two percent of the 201 programs functioned on a semester basis, with nearly all the remaining ones on a quarter basis. Two programs could not be classified in either of these categories (Table 9-1).

Table 9-1. Associate Degree Nursing Programs, by Type of Program

Type of Program	Programs No.	Programs %
Semester		
4 semesters and 1 summer	64	32
4 semesters	58	29
4 semesters and 2 summers	35	17
Other semester programs	8	4
Subtotal	165	82
Quarter		
7 quarters	16	8
6 quarters*	13	6
8 quarters	5	2
Subtotal	34	16
Other	2	1
Total	201	100

*With or without summer session.

Considerable variation existed within each category in relation to the length of the program, the latter generally reflecting calendar or academic year lengths. For example, approximately a third of all programs required 4 semesters and 1 summer session, while a somewhat smaller proportion required only 4 semesters of study. On the other hand, 17 percent of the programs required 4 semesters and 2 summer sessions for the completion of the course. Several programs were 5 or more semesters long.

Programs offered on a quarter basis also differed in length. The range was from 6 to 8 quarters, with summer sessions indicated for some but not for others.

Thus, associate degree nursing programs varied not only in relation to their organization as semester or quarter programs, but also in relation to the total program length.

CREDIT REQUIREMENTS

Differences in lengths of programs are presumed to be reflected in total credit requirements, although credit allotment for various program offerings may vary.

Programs on a Semester Basis

Table 9-2 shows the credit requirements for nursing and for general and related courses in the 165 programs organized on a semester basis.

Table 9-2. Associate Degree Nursing Programs on a Semester Basis Reporting Credit Requirements for Nursing and for General Education and Related Courses, by Total Number of Credits Required
(N=165)

Total Number of Credits	Course Requirements			
	Nursing Courses		General Education and Related Courses	
	No.	%	No.	%
Less than 30	10	6	9	5
30 - 35	85	52	72	44
36 - 41	57	35	67	41
42 or more	9	5	12	7
No response	4	2	5	3
Total	165	100	165	100

Diversity in total credit requirements for individual programs is reflected in a range of from less than 30 to more than 42. Some variations in credit requirements between nursing and general education courses are also evident. A majority of programs required 30 to 35 credits for nursing courses. Forty-four percent of the programs, somewhat less than a majority, required the same number of credits for general education courses. The great majority of programs, however, required the same number of credits, 30 to 41, for nursing and for general education and related courses.

When total credit requirements for graduation were reported, they ranged from less than 65 to more than 85 credits (Table 9-3). Approximately two thirds of the programs that provided this information required 74 or fewer credits. Fourteen percent of the programs did not respond.

Table 9-3. Associate Degree Nursing Programs on a Semester Basis, by Total Number of Credits Required for Graduation
(N=165)

Number of Credits	Programs No.	Programs %
Less than 65	18	11
65 - 69	57	35
70 - 74	37	22
75 - 79	18	11
80 - 84	5	3
85 or more	7	4
No response	23	14
Total	165	100

Programs on a Quarter Basis

For the 34 programs organized on a quarter basis, credit requirements varied within and between curriculum divisions (Table 9-4). In comparing these requirements with those for semester programs, however, it must be remembered that two thirds of a semester credit usually equals one quarter credit.

Table 9-4. Associate Degree Nursing Programs on a Quarter Basis, by Total Number of Credits Required for Nursing Courses, and by Total Number of Credits Required for General Education and Related Courses
(N=34)

Total Number of Credits Required for Nursing Courses	Programs No.	Programs %	Total Number of Credits Required for General Education and Related Courses	Programs No.	Programs %
Less than 50	10	29	Less than 45	1	3
50 - 55	13	38	45 - 48	6	18
56 - 61	7	21	49 - 52	12	35
62 - 67	1	3	53 - 56	2	6
68 or more	1	3	57 or more	11	32
No response	2	6	No response	2	6
Total	34	100	Total	34	100

For the nursing courses, required credits ranged from less than 50 to over 68, 38 percent of the programs requiring 50 to 55 credits. The range for general education courses, representing a bimodal distribution, was from less than 45 to more than 57 credits. In this instance, 35 percent of the programs demanded 49 to 52 credits. However, an almost equally high proportion of programs required 57 or more credits.

The total number of credits required ranged from less than 96 to more than 116 (Table 9-5). Thirty-five percent of the programs required 96 to 105 credits, and an almost equally high proportion, 106 to 115 credits.

Table 9-5. Associate Degree Nursing Programs on a Quarter Basis, by Total Number of Credits Required for Graduation
(N=34)

Number of Credits	Programs	
	No.	%
Less than 96	3	9
96 - 105	12	35
106 - 115	11	32
116 or more	4	12
No response	4	12
Total	34	100

Relationship to Other Variables

The relationship between credit requirements and a number of variables was explored for semester programs only since they represented the considerable majority of responding programs, and since too few of the 34 programs organized on a quarter basis could provide the information necessary for cross-tabulations.

Regional Distribution. For 142 programs on a semester basis, credit requirements could be examined in relation to regional distribution (Table 9-6).

Table 9-6. Associate Degree Nursing Programs on a Semester Basis Reporting Total Number of Program Credits, by NLN Region
(N=142)

NLN Region*	Number of Program Credits											
	Less than 65		65 - 69		70 - 74		75 - 79		80 or more		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
North Atlantic	8	44	19	33	1	3	3	17	3	25	34	24
Midwest	3	17	19	33	8	22	3	17	2	17	35	25
Southern	3	17	13	23	14	38	5	28	7	58	42	30
Western	4	22	6	11	14	38	7	39	0	0	31	22
Total	18	100	57	100	37	100	18	100	12	100	142	100

* NLN Region I (North Atlantic) Conn., Del., D.C., Me., Mass., N.H., N.J., N.Y., Pa., R.I., Vt.
Region II (Midwest) Ill., Ind., Iowa, Kan., Mich., Minn., Mo., Neb., N.D., Ohio, S.D., Wis.
Region III (Southern) Ala., Ark., Fla., Ga., Ky., La., Md., Miss., N.C., Okla., Puerto Rico, S.C., Tenn., Tex., Va., Virgin Islands, W.Va.
Region IV (Western) Alaska, Ariz., Calif., Colo., Guam, Hawaii, Idaho, Mont., Nev., N.M., Ore., Utah, Wash., Wyo.

On a descriptive level of analysis, it can be noted that the largest single group of programs, 57, required 65 to 69 total program credits and that, within this group, one third of the programs were located in the North Atlantic and another third in the Midwestern region of the country. Within the groups with higher credit requirements, more programs were located in the West and in the South. Thus, 38 percent of the programs requiring 70-74 credits were in the West, and an equal proportion were in the South. With the group demanding 75 to 79 credits, the highest proportion were again in the West.

Although only 12 programs required 80 or more total credits, more than half of these were in the South. Of the 18 programs requiring the fewest credits, less than 65, nearly half were in the North Atlantic region.

Licensure Examination Scores. To determine how credit requirements were reflected in graduate performance on state boards, they were related to the number of tests in the registered nurse licensure examination on which school means exceeded state means. Although these cross-tabulations involved the mean scores for the academic year 1964-1965 and the credit requirements for 1966-1967, it was assumed that the latter were not too different from those of 1964-1965.

As shown in Table 9-7, cross-tabulations could be done for only 67 programs.

Table 9-7. Associate Degree Nursing Programs on a Semester Basis Reporting Total Number of Program Credits, by Number of Tests in the Examination for Registered Nurse Licensure (1964-1965) on Which School Means Exceeded State Means
(N=67)

Number of Tests*	Number of Program Credits											
	Less than 65		65 - 69		70 - 74		75 - 79		80 or more		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1	1	12	7	27	2	9	1	12	0	0	11	16
2 - 3	0	0	4	15	7	32	2	25	1	33	14	21
4 - 5	0	0	6	23	6	27	2	25	0	0	14	21
None	7	88	9	35	7	32	3	38	2	67	28	42
Total	8	100	26	100	22	100	8	100	3	100	67	100

* Tests include: medical nursing, surgical nursing, obstetric nursing, nursing of children, and psychiatric nursing.

Descriptively, it can be said that 42 percent of the programs reported school means that did not exceed state means on any of the 5 tests. Among the 26 programs that required 65 to 69 credits, 7 reported mean scores that exceeded the state scores on 1 test, and 6 that did so on 4 or 5 tests. Of the 22 programs requiring 70 to 74 credits, 7 topped state scores on 2 or 3 tests, and an additional 6 did so on 4 or 5 tests. With the exception of the two groups of programs at the extremes of the range (those requiring the least and the most credits), the majority of the programs reported school means exceeding those of the state on 1 to 5 tests.

Preparation of Director. Statistically significant differences, determined by means of the chi square test, were found among program groups reporting varying credit requirements, when the latter were analyzed in relation to the formal preparation of the director to teach in community colleges (Table 9-8). In 4 of the 5 established groups, the majority of program directors lacked such preparation. The exception was the group of 15 programs, requiring less than 65 program credits, in which 11 programs reported directors who had been so prepared.

Although of statistical significance, the findings seem less significant when translated into practical considerations. The fact remains that, regardless of credit requirements, 63 percent of the 135 programs had directors who were not specifically prepared to teach on the community college level.

Table 9-8. Associate Degree Nursing Programs on a Semester Basis Reporting Total Number of Program Credits, by Formal Preparation of Director to Teach in Community Colleges
(N=135)

Preparation of Director	Number of Program Credits											
	Less than 65		65 - 69		70 - 74		75 - 79		80 or more		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Formally prepared	11	73	18	33	13	37	6	33	2	17	50	37
Not formally prepared	4	27	37	67	22	63	12	67	10	83	85	63
Total	15	100	55	100	35	100	18	100	12	100	135	100

($X^2=11.15$; df=4; $X^2_{95}=9.49$)

Individual Curriculum Units

In presenting the data about credit requirements for individual curriculum units in both semester and quarter programs, existing variations in the subject matter comprising such units had to be taken into consideration.

Since in 39 semester programs and in 4 quarter programs, medicine, surgery, and psychiatric nursing had been

Table 9-9. Associate Degree Nursing Programs on a Semester Basis, by Total Number of Credits Required for Each Curriculum Unit
(N=165)

Number of Credits Fundamentals of Nursing	Programs		Number of Credits Maternal and Child Health	Programs		Number of Credits Medicine and Surgery	Programs		Number of Credits Psychiatric Nursing	Programs		Number of Credits General Education and Related Courses	Programs	
	No.	%		No.	%		No.	%		No.	%		No.	%
Less than 5	18	11	Less than 5	9	5	Less than 10	10	6	Less than 4	10	6	Less than 31	14	8
5 - 6	73	44	5 - 6	32	19	10 - 12	9	5	4	18	11	31 - 33	32	19
7 - 8	27	16	7 - 8	36	22	13 - 15	23	14	5	32	19	34 - 36	46	28
9 or more	13	8	9 - 10	42	25	16 - 18	34	21	6	20	12	37 - 39	32	19
			11 or more	10	6	19 - 21	9	5	7	6	4	40 - 42	9	5
						22 or more	10	6	8 or more	9	5	43 or more	9	5
No response or not codable	34	21	No response or not codable	36	22	No response or not codable	70*	42	No response or not codable	70*	42	No response or not codable	23	14
Total	165	100	Total	165	100	Total	165	100	Total	165	100	Total	165	100

* Includes 39 programs that combine medicine, surgery, and psychiatric nursing into one curriculum unit.

combined into one broad unit, these programs were classified in the "not codable" category for the columns involved. The proportions for the other categories are, therefore, considerably reduced. Credit requirements for the combined unit are presented separately for programs on semester and quarter bases.

Table 9-9 shows the total number of credits required for each curriculum unit taught in semester programs.

Credit requirement ranges, although all distinguished by narrow intervals, vary for different curriculum units. The highest credit demands were made for the conglomerate unit "General Education and Related Courses," which also included such curriculum offerings as "Trends," "History of Nursing," etc., whenever these were indicated separately. Within a range of less than 31 to over 43 credits, 28 percent of the programs required 34 to 36 credits in this area.

Credit requirements for each of the remaining curriculum units were much smaller.

Comparison of modes reveals that for medicine and surgery, approximately one fifth of the programs required 16 to 18 credits; for maternal and child health, one quarter of the programs required 9 or 10 credits; for fundamentals of nursing nearly half of the programs required 5 or 6 credits; for psychiatric nursing close to one fifth required 5 credits.

Credit requirements for medicine, surgery, and psychiatric nursing combined into one curriculum unit ranged from less than 18 to 22 or more, the highest proportion of programs requiring 18 or 19 credits (Table 9-10). The upper extreme of this range equals that of the medicine and surgery unit when the latter is not combined with psychiatric nursing.

Table 9-10. Associate Degree Nursing Programs on a Semester Basis, by Total Number of Credits Required for Medicine, Surgery, and Psychiatric Nursing as a Combined Curriculum Unit
(N=39)

Number of Credits	Programs	
	No.	%
Less than 18	7	18
18 - 19	12	31
20 - 21	7	18
22 or more	7	18
No response or not codable	6	15
Total	39	100

Table 9-11 shows the credits required for different curriculum units for the 34 programs on a quarter basis.

Again, the largest number of credits, ranging from less than 45 to over 55, were required for general education courses. A majority of programs required between 45 and 54 credits in this area of study.

The remaining curriculum units generally required fewer credits. Comparison of modes for the four units reveals that for medicine and surgery, more than a third of the programs required 20 to 29 such credits; for maternal and child health, close to a third of the programs required 11 to 14 credits; for fundamentals of nursing, more than a third of the programs required 9 to 12 credits; and for psychiatric nursing, an identical proportion required 7 to 9 credits.

Table 9-11. Associate Degree Nursing Programs on a Quarter Basis, by Total Number of Credits Required for Each Curriculum Unit
(N=34)

Number of Credits Fundamentals of Nursing	Programs		Number of Credits Maternal and Child Health	Programs		Number of Credits Medicine and Surgery	Programs		Number of Credits Psychiatric Nursing	Programs		Number of Credits General Education and Related Courses	Programs	
	No.	%		No.	%		No.	%		No.	%		No.	%
Less than 5	3	9	Less than 7	4	12	Less than 10	1	3	Less than 7	5	15	Less than 45	1	3
5 - 8	9	26	7 - 10	6	18	10 - 19	7	21	7 - 9	12	35	45 - 54	19	56
9 - 12	12	35	11 - 14	11	32	20 - 29	12	35	10 - 12	5	15	55 or more	10	29
13 or more	4	12	15 - 18	5	15	30 or more	5	15	13 or more	3	9			
			19 or more	2	6									
No response or not codable	6	18	No response or not codable	6	18	No response or not codable	9*	26	No response or not codable	9*	26	No response or not codable	4	12
Total	34	100	Total	34	100	Total	34	100	Total	34	100	Total	34	100

* Includes 4 programs that combine medicine, surgery, and psychiatric nursing into one curriculum unit.

As indicated earlier, only 4 of the programs organized on a quarter basis had combined medicine, surgery, and psychiatric nursing into one broad curriculum unit.

Only 3 of these programs reported the credit requirements, ranging from 28 to 30 credits, for this unit.

CREDIT HOUR EQUIVALENTS

In general, weekly credit hour equivalents are represented by one classroom hour per credit and two or three laboratory hours per credit, including laboratory study in both classroom and clinical practice units.

Tables 9-12 through 9-15 bear this out. The vast majorities of the 165 semester and the 34 quarter programs reported one hour class as the equivalent of one credit for both nursing and general education courses. Considerable majorities also indicated three hours of clinical laboratory study as the equivalent of one credit.

Varying majorities reported three hours of classroom laboratory in nursing and general education courses as equivalent to one semester or quarter credit. An exception were half of the 34 programs organized on a quarter basis that reported two classroom laboratory hours as equivalent to one credit for general education courses.

Table 9-12. Associate Degree Nursing Programs on a Semester Basis Reporting Weekly Hour Equivalents for One Credit of Study for Nursing Courses, by Number of Hours Required
(N=165)

Weekly Hour Equivalents for One Credit	Type of Study					
	Classroom		Class Laboratory		Clinical Laboratory	
	No.	%	No.	%	No.	%
1	162	98	9	5	0	0
2	0	0	21	13	8	5
3	0	0	87	53	140	85
4	0	0	6	4	11	7
None, no response, or not codable	3	2	42	26	6	4
Total	165	100	165	100	165	100

Weekly credit hour equivalents for classroom laboratory in nursing and general education and related courses were either denied or not indicated by a number of semester and quarter programs.

Table 9-13. Associate Degree Nursing Programs on a Semester Basis Reporting Weekly Hour Equivalents for One Credit of Study for General Education and Related Courses, by Number of Hours Required
(N=165)

Weekly Hour Equivalents for One Credit	Type of Study			
	Classroom		Class Laboratory	
	No.	%	No.	%
1	162	98	5	3
2	0	0	66	40
3	0	0	89	54
4	0	0	1	+
No response or not codable	3	2	4	2
Total	165	100	165	100

+Less than 1 percent.

Table 9-14. Associate Degree Nursing Programs on a Quarter Basis Reporting Weekly Hour Equivalents for One Credit of Study for Nursing Courses, by Number of Hours Required
(N=34)

Weekly Hour Equivalents for One Credit	Type of Study					
	Classroom		Class Laboratory		Clinical Laboratory	
	No.	%	No.	%	No.	%
1	32	94	2	6	0	0
2	0	0	3	9	0	0
3	1	3	24	71	30	88
4	0	0	0	0	2	6
5	0	0	0	0	0	0
6	1	3	1	3	0	0
None, no response, or not codable	0	0	4	12	2	6
Total	34	100	34	100	34	100

Table 9-15. Associate Degree Nursing Programs on a Quarter Basis Reporting Weekly Hour Equivalents for One Credit of Study for General Education and Related Courses, by Number of Hours Required
(N=34)

Weekly Hour Equivalents for One Credit	Type of Study			
	Classroom		Class Laboratory	
	No.	%	No.	%
1	32	94	0	0
2	0	0	17	50
3	0	0	15	44
4	1	3	0	0
5	1	3	0	0
None or no response	0	0	2	6
Total	34	100	34	100

Credit Formulae

For an overall picture of credit hour equivalents, credit formulae were established based upon the required number of hours per credit for classroom, class laboratory, and clinical laboratory instruction. This information, pertaining to both nursing and general education courses, is presented separately for programs on semester and quarter bases. When credit hour equivalents for class laboratory were not indicated, a zero was substituted in the formula.

Table 9-16 shows the credit formulae for programs on a semester basis. By far the largest single group of programs indicated the N 133-G 13 formula. In this formula, N 133 indicates that in nursing courses (N), one class hour (1), three class laboratory hours (3), and three clinical laboratory hours (3) are the weekly hour equivalents required for three credits of program activity. Similarly, G 13 indicates that in general education courses (G), one class hour (1) and three class laboratory hours (3) are the weekly hour equivalents required for two credits of program activity. It must be noted, too, that for the programs represented by this formula, credit hour equivalents are alike for required nursing and nonnursing courses. Approximately one fifth of the programs had requirements for nursing courses that differed somewhat from those for general education courses as expressed in the formulae N 133-G 12 and N 103-G 12. In this instance, the class laboratory hour requirements for general education courses were smaller than those for nursing courses among 13 percent of the programs.

The remaining proportions of programs were also representative of variations in credit formulae. This can

Table 9-16. Associate Degree Nursing Programs on a Semester Basis, by Credit Formula for All Required Courses
(N=165)

Credit Formula*	Programs	
	No.	%
N 133-G 13	59	36
N 103-G 13	24	15
N 133-G 12	22	13
N 103-G 12	14	8
N 123-G 12	10	6
N 122-G 12	6	4
N 144-G 12	4	2
Other combinations	23	14
No response or not codable	3	2
Total	165	100

* Weekly hour equivalents required for one credit in each program activity.
Reading from left to right for each category:
N = nursing courses
    class hour
    class laboratory hours
    clinical laboratory hours
G = general education and related courses
    class hour
    class laboratory hours

be noted, for example, in the smaller number of hours required per credit for laboratory study in general education courses (N 144-G 12), or in the difference in requirements for clinical and class laboratory for nursing courses (N 123-G 12).

Similar findings can be reported for programs on a quarter basis (Table 9-17).

Table 9-17. Associate Degree Nursing Programs on a Quarter Basis, by Credit Formula for All Required Courses
(N=34)

Credit Formula*	Programs	
	No.	%
N 133-G 13	14	41
N 133-G 12	9	26
N 123-G 12	3	9
N 103-G 12	2	6
Other combinations	5	15
Not codable	1	3
Total	34	100

* Weekly hour equivalents required for one credit in each program activity.
Reading from left to right for each category:
N = nursing courses
class hour
class laboratory hours
clinical laboratory hours
G = general education and related courses
class hour
class laboratory hours

The N 133-G 13 formula was representative of 41 percent of programs in the group and of identical requirements for nursing and nonnursing courses. All the remaining programs had varying credit hour equivalents within or between the nursing and general education curriculum divisions.

Generally speaking, credit hour equivalents, presumably reflecting school policies, did not vary for classroom instruction, regardless of type or length of program, or for nursing versus general education courses. Some differences were noted, however, in the smaller number of hours required for laboratory study in nonnursing versus those in nursing courses.

CLOCK HOUR REQUIREMENTS

The number of hours spent in classroom and laboratory study are assumed to be in harmony with the credit requirements and credit hour equivalents established for a program. Designated study time for given educational activities such as class or laboratory study for various curriculum units would, therefore, reflect variations in these requirements. On the other hand, such study time might also represent deviations from established requirements in terms of increased or decreased clock hour allotments regardless of official credit hour equivalents.

For information about these requirements, the respondents were asked to give the total number of hours the students spent in the classroom, class laboratory, and clinical laboratory for given curriculum units.

Most respondents submitted the information as requested in clock hour segments. When credit hours were given instead, they were converted into clock hours for one week, based on reported hour equivalents for one credit, and were multiplied by 15 weeks for a semester or 10 weeks for a quarter period.

Weekly clock hours were also converted. Credit-free health education and physical education time was not included. Clock hours for class and clinical laboratory were combined, if reported separately.

Since the submitted information, in some instances, had to be translated into usable data, there is a possibility ty of some deviation from actual clock hour requirements in given programs.

Classroom Instruction

Programs on a Semester Basis. The clock hours required for classroom instruction for programs on a semester basis (Table 9-18) reflect the variation in credit requirements for different areas of study. Most striking, in all instances, are the wide ranges in study time indicated for individual study areas in given programs.

Table 9-18. Associate Degree Nursing Programs on a Semester Basis, by Total Number of Clock Hours Required for Classroom Instruction for Each Curriculum Unit (N=165)

Number of Class Clock Hours Fundamentals of Nursing	Programs		Number of Class Clock Hours Maternal and Child Health	Programs		Number of Class Clock Hours Medicine and Surgery	Programs		Number of Class Clock Hours Psychiatric Nursing	Programs		Number of Class Clock Hours General Education and Related Courses	Programs	
	No.	%		No.	%		No.	%		No.	%		No.	%
Less than 30	3	2	Less than 41	10	6	Less than 76	10	6	Less than 30	9	5	Less than 401	10	6
30 - 44	24	15	41 - 60	57	35	76 - 125	39	24	30 - 49	53	32	401 - 450	22	13
45 - 59	43	26	61 - 80	38	23	126 - 175	34	21	50 - 69	20	12	451 - 500	23	14
60 - 74	42	25	81 - 100	23	14	176 or more	19	11	70 - 89	7	4	501 - 550	24	15
75 - 89	10	6	101 or more	10	6				90 or more	13	8	551 - 600	12	7
90 - 104	12	7										601 - 650	14	8
105 or more	6	4										651 or more	8	5
No response or not codable	25	15	No response or not codable	27	16	No response or not codable	63*	38	No response or not codable	63*	38	No response or not codable	52	32
Total	165	100	Total	165	100	Total	165	100	Total	165	100	Total	165	100

* Includes 39 programs that combine medicine, surgery, and psychiatric nursing into one curriculum unit.

For general education and related courses, the range is from less than 401 to over 651 hours. Most often reported, by 15 percent of the programs, were 501 to 550 hours; an almost identical proportion required 451 to 500 hours.

For medicine and surgery, classroom clock hour requirements varied from less than 76 to over 176 hours. In close to one quarter of the programs, between 76 and 125 hours were spent in this area.

Clock hour requirements for fundamentals of nursing ranged from less than 30 to over 105. Approximately one quarter of the programs required 45 to 59 or 60 to 74 hours in this area.

A similar range of required clock hours, from less than 41 to over 101, was established for maternal and child health. In this instance, about a third of the group required 41 to 60 hours in this category.

The least number of hours were required for psychiatric nursing. The range was from less than 30 to over 90, with close to a third of the programs requiring 30 to 49 hours of study in this curriculum area.

For medicine, surgery, and psychiatric nursing as a combined unit, clock hour requirements ranged from less than 131 to over 191 (Table 9-19). In precisely one third of the programs, 131 to 150 clock hours were required.

Table 9-19. Associate Degree Nursing Programs on a Semester Basis, by Total Number of Clock Hours Required for Classroom Instruction for Medicine, Surgery, and Psychiatric Nursing as a Combined Curriculum Unit
(N=39)

Number of Class Clock Hours	Programs	
	No.	%
Less than 131	4	10
131 - 150	13	33
151 - 170	7	18
171 - 190	6	15
191 or more	6	15
No response or not codable	3	8
Total	39	100

Programs on a Quarter Basis. Descriptive comparison of the required clock hours in classroom instruction for programs on a quarter basis with those on a semester basis reveals some variation, as expressed in the differences in extremes established for individual ranges (Tables 9-18 and 9-20). Such comparison, however, must take into consideration the fact that two thirds of a semester credit equals one quarter credit.

The smaller number of hours required in some quarter programs despite greater credit requirements can, in part, be explained by differences in the length of time it takes to complete a given course. For example, a course in a semester program requiring 6 credits over a 15-week period covers a total of 150 hours, using 4 lecture and 6 laboratory hours per week. Comparably, a course in a quarter program requiring 6 credits over a 10-week period covers a total of 100 hours, using the same number of lecture and laboratory hours.

Specifically, for programs on a quarter basis, between less than 400 and 600 or more classroom clock hours were required for general education and related courses, 400 to 449 being the single category most often mentioned, as shown in Table 9-20.

For medicine and surgery, required clock hours ranged from less than 120 to over 160, with close to a third of the group indicating less than 120. Fewer clock hours, ranging from less than 31 to over 91, were indicated for maternal and child health. The highest single category of programs in this uneven distribution required 71 to 90 hours.

Table 9-20. Associate Degree Nursing Programs on a Quarter Basis, by Total Number of Clock Hours Required for Classroom Instruction for Each Curriculum Unit
(N=34)

Number of Class Clock Hours Fundamentals of Nursing	Programs		Number of Class Clock Hours Maternal and Child Health	Programs		Number of Class Clock Hours Medicine and Surgery	Programs		Number of Class Clock Hours Psychiatric Nursing	Programs		Number of Class Clock Hours General Education and Related Courses	Programs	
	No.	%		No.	%		No.	%		No.	%		No.	%
Less than 40	9	26	Less than 31	4	12	Less than 120	11	32	Less than 36	3	9	Less than 400	2	6
40 - 59	4	12	31 - 50	7	21	120 - 139	7	21	36 - 45	10	29	400 - 449	9	26
60 - 79	10	29	51 - 70	5	15	140 - 159	4	12	46 - 55	5	15	450 - 499	6	18
80 or more	7	21	71 - 90	8	23	160 or more	4	12	56 - 65	2	6	500 - 549	4	12
			91 or more	6	18				66 or more	5	15	550 - 599	4	12
												600 or more	3	9
No response or not codable	4	12	No response or not codable	4	12	No response or not codable	8*	23	No response or not codable	9*	26	No response or not codable	6	18
Total	34	100	Total	34	100	Total	34	100	Total	34	100	Total	34	100

* Includes 4 programs that combine medicine, surgery, and psychiatric nursing into one curriculum unit.

In a similar uneven distribution of programs reporting requirements for fundamentals of nursing, the highest single category indicated 60 to 79 hours was required. The range for this area of study was from less than 40 to over 80 hours.

As with programs on a semester basis, clock hour requirements for psychiatric nursing were the lowest among the curriculum units, ranging from less than 36 to over 66. Most often mentioned by respondents were 36 to 45 hours. For medicine, surgery, and psychiatric nursing combined, clock hours ranged from 160 to 264 hours.

Laboratory Instruction

Considerable differences in the distribution of scheduled time for laboratory instruction, among varying programs and among the different curriculum units, are revealed in Tables 9-21 and 9-22.

Programs on a Semester Basis. The greatest amount of time, varying between less than 251 and more than 651 clock hours for programs on a semester basis (Table 9-21), was required for medicine and surgery. Close to one fifth of the group required 351 to 450 clock hours of laboratory instruction in this area.

From less than 135 to more than 295 clock hours were required for maternal and child health. In this uneven distribution, one fifth of the group required 175 to 214 clock hours.

Although the credit and classroom hour requirements were greatest for general education and related courses,

Table 9-21. Associate Degree Nursing Programs on a Semester Basis, by Total Number of Clock Hours Required for Laboratory Instruction for Each Curriculum Unit
(N = 165)

Number of Lab. Clock Hours Fundamentals of Nursing	Programs		Number of Lab. Clock Hours Maternal and Child Health	Programs		Number of Lab. Clock Hours Medicine and Surgery	Programs		Number of Lab. Clock Hours Psychiatric Nursing	Programs		Number of Lab. Clock Hours General Education and Related Courses	Programs	
	No.	%		No.	%		No.	%		No.	%		No.	%
Less than 76	9	5	Less than 135	28	17	Less than 251	11	7	Less than 91	18	11	Less than 76	12	7
76 - 100	44	27	135 - 174	25	15	251 - 350	26	16	91 - 130	30	18	76 - 125	23	14
101 - 125	25	15	175 - 214	33	20	351 - 450	31	19	131 - 170	22	13	126 - 175	26	16
126 - 150	27	16	215 - 254	18	11	451 - 550	12	7	171 - 210	16	10	176 - 225	32	19
151 - 175	7	4	255 - 294	23	14	551 - 650	7	4	211 or more	15	9	226 - 275	10	6
176 - 200	10	6	295 or more	11	7	651 or more	14	8				276 or more	9	5
201 or more	17	10												
No response or not codable	26	16	No response or not codable	27	16	No response or not codable	64*	39	No response or not codable	64*	39	No response or not codable	53	32
Total	165	100	Total	165	100	Total	165	100	Total	165	100	Total	165	100

* Includes 39 programs that combine medicine, surgery, and psychiatric nursing into one curriculum unit.

Table 9-22. Associate Degree Nursing Programs on a Semester Basis, by Total Number of Clock Hours Required for Laboratory Instruction for Medicine, Surgery, and Psychiatric Nursing as a Combined Curriculum Unit
(N=39)

Number of Laboratory Clock Hours	Programs	
	No.	%
Less than 250	2	5
250 - 299	3	8
300 - 349	3	8
350 - 399	9	23
400 - 449	6	15
450 - 499	5	13
500 - 549	4	10
550 +	4	10
No response	3	8
Total	39	100

this was not the case for laboratory clock hours, attesting to differences in class and laboratory time allotments for given curriculum units. The range established for general education courses was from less than 76 to over 276 hours; the highest single category were programs requiring 176 to 225 hours in this area.

In psychiatric nursing, from less than 91 to more than 211 hours were required, 91 to 130 being the single category most often mentioned.

A somewhat similar range of hours (less than 76 to over 201) was indicated for fundamentals of nursing. In this distribution, more than a quarter of the programs required 76 to 100 clock hours of laboratory activity.

When medicine, surgery, and psychiatric nursing were combined, the required clock hours for laboratory instruction ranged from less than 250 to over 550 hours, a somewhat narrower range than for medicine and surgery as an uncombined curriculum unit (Table 9-22). Close to one quarter of the group required 350 to 399 clock hours in this area.

Programs on a Quarter Basis. Clock hour requirements for laboratory instruction in programs on a quarter basis (Table 9-23) resembled those for programs on a semester basis in terms of general distribution.

Table 9-23. Associate Degree Nursing Programs on a Quarter Basis, by Total Number of Clock Hours Required for Laboratory Instruction for Each Curriculum Unit
(N=34)

Number of Lab. Clock Hours Fundamentals of Nursing	Programs		Number of Lab. Clock Hours Maternal and Child Health	Programs		Number of Lab. Clock Hours Medicine and Surgery	Programs		Number of Lab. Clock Hours Psychiatric Nursing	Programs		Number of Lab. Clock Hours General Education and Related Courses	Programs	
	No.	%		No.	%		No.	%		No.	%		No.	%
Less than 66	2	6	Less than 101	6	18	Less than 300	8	23	Less than 101	8	23	Less than 101	9	26
66 - 105	11	32	101 - 150	6	18	300 - 399	9	26	101 - 150	7	21	101 - 150	10	29
106 - 145	7	21	151 - 200	5	15	400 - 499	5	15	151 - 200	6	18	151 - 200	3	9
146 - 185	6	18	201 - 250	5	15	500 or more	4	12	201 or more	4	12	201 or more	5	15
186 or more	3	9	251 or more	8	23									
No response or not codable	5	15	No response or not codable	4	12	No response or not codable	8*	23	No response or not codable	9*	26	No response or not codable	7	21
Total	34	100	Total	34	100	Total	34	100	Total	34	100	Total	34	100

* Includes 4 programs that combine medicine, surgery, and psychiatric nursing into one curriculum unit.

The largest number of hours, ranging from less than 300 to more than 500, were required for medicine and surgery, with 300 to 399 hours most often indicated.

For maternal and child health, the range was from less than 101 to more than 251 hours. In this uneven distribution, close to one quarter of the programs required 251 or more hours of instruction.

Identical ranges of required clock hours (from less than 101 to more than 201 hours) were established for general education and for psychiatric nursing courses. Twenty-nine percent among the former required between 101 and 150 clock hours of instruction, while 23 percent among the latter required less than 101 such hours.

For fundamentals of nursing, from less than 66 to more than 186 hours of laboratory instruction were required. The range most often indicated was between 66 and 105 hours.

For medicine, surgery, and psychiatric nursing combined into one unit, clock hours ranged between 360 and 450 hours.

SUMMARY

Associate degree nursing programs varied in their organization as semester and quarter programs as well as in total length of time they required for graduation.

Credit hour equivalents, on the whole, were similar among programs regardless of the latters' type. However, some variations were noted in the laboratory credit hour equivalents between nursing and general education curriculum divisions.

Generally, credit requirements for both semester and quarter programs were also fairly alike, as were those for general education and nursing courses. However, within each program-group, the findings reflected considerable differences in these requirements among programs. Most obvious were the differences in total numbers of credits required by individual programs within the nursing and the general education curriculum divisions, or when such credits were combined into one total figure.

Generally, programs requiring fewer credits for graduation seemed to be more prevalent in the North Atlantic and Midwestern regions; those requiring more, in the Southern and Western parts of the country.

Programs requiring fewer credits for graduation tended to report school means that exceeded those of the state on 1 test in the registered nurse licensure examination; those requiring a larger number of credits were more apt to report school means that did so on 2 or more tests.

The absence of fairly standardized credit requirements was strongly reflected in the differing number of clock hours required for classroom instruction and laboratory activity for various curriculum units.

CHAPTER X

THE GRADUATES

Examination for nurse licensure is the means used "...to determine minimum competency for safe practice," thereby permitting entry of additional qualified nurses into the active nursing force.[1] It has been pointed out, however, that while the examinations measure accumulated knowledge and powers of reasoning as elicited by a paper and pencil test, they do not have predictive validity for actual performance in the clinical area or for the professional development of individual nurses.

Since determination of minimum competency for safe nursing practice is the goal of the licensure examination, the same one is given to graduates from baccalaureate, associate degree, and diploma programs. For facilitation of interstate endorsement of licensure, a standard scoring system has been adopted in all jurisdictions, although cut-off scores at which graduates are considered to have passed and, therefore, to be qualified for licensure may vary among the states. Most state boards of nursing consider 350 to be the passing score, set at 1-1/2 standard deviations below the national mean of 500 on each of the five tests in the examination.

For an indication of the contribution of associate degree programs to manpower supply, in terms of the performance of their graduates on licensure examinations, information was sought relating to both mean scores and passing scores attained by these graduates.

To determine the proportion of 1966 associate degree graduates who passed the licensure examination in their state on the first try, the respondents were asked to indicate the number of students who graduated in 1966, the number of these graduates who took the licensure examination, and the number who passed it the first time they took it.

To compare graduate performance for individual programs on the five separate components of the licensure examination, specific information was requested about the mean scores attained by the program and those for the jurisdiction in which the program was located. Test results for the academic year 1964-1965 were chosen since these were the latest available in February, 1967.*

Whether or not the programs, as one means of self-evaluation, carried out a systematic follow-up of activities of their graduates was a third area of interest. Respondents were therefore asked whether they had such follow-up plans and, if they did, the nature of these plans and the means employed to secure information about the employment, educational, or other activities of their graduates.

GRADUATES PER PROGRAM TAKING AND PASSING THE LICENSURE EXAMINATION

A total of 111 programs indicated that their 1966 graduates had taken the state board examination for registered nurse licensure. Eighty-five of the 201 responding programs did not graduate a class in 1966.

Between fewer than 10 and 40 or more graduates per program were reported as having taken the examination (Table 10-1). In 34 percent of the programs, between 20 and 29 graduates took the examination.

Although the range of graduates per program who passed the examination on first trial was the same as the range taking it, nearly a third of the respondents indicated that only 10 to 19 of their graduates had passed the examination.

In 73 percent of the 111 programs, 29 or fewer graduates took the licensure examination, while in the remaining programs, 30 or more did so. On the other hand, 82 percent of the programs reported that 29 or fewer graduates had succeeded in passing the examination on the first attempt.

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*See reference related to the collection of these data in chapter on Methodology. pp. 9-10.

Table 10-1. Associate Degree Nursing Programs Reporting 1966 Graduates Writing the Examination for Registered Nurse Licensure and Passing on First Trial, by Number of Graduates
(N=111)

Number of 1966 Graduates	Participation on Licensure Examination			
	Writing Examination		Passing Examination on First Trial	
	No.	%	No.	%
Less than 10	11	10	25	22
10 - 19	32	29	35	31
20 - 29	38	34	32	29
30 - 39	16	14	10	9
40 or more	14	13	9	8
Total	111	100	111	100

The proportions of 1966 graduates from individual programs who took the licensure examination and the proportions of the latter who passed it on first trial are presented in Table 10-2.

In 82 percent of the programs, all graduates took the licensure examination. In the remaining programs, the proportion of graduates taking the examination ranged from less than 80 percent to 99 percent.

Table 10-2. Associate Degree Nursing Programs, by Percent of 1966 Graduates Writing the Examination for Registered Nurse Licensure, and by Percent of Those Writing Who Pass on First Trial
(N=111)

Percent of 1966 Graduates Writing Examination	Programs		Percent of 1966 Graduates Writing Examination Who Pass on First Trial	Programs	
	No.	%		No.	%
Less than 80	2	2	Less than 50	6	5
80 - 89	5	5	50 - 59	11	10
90 - 99	13	12	60 - 69	13	12
100	91	82	70 - 79	25	23
			80 - 89	24	22
			90 - 99	23	21
			100	9	8
Total	111	100	Total	111	100

The proportions of candidates who were initially successful in passing ranged from less than 50 percent for 6 programs to 100 percent for 9 programs. The majority of the respondent programs reported that up to 90 percent of the graduates who took the examination had passed on first trial. The remaining programs reported that 90 to 100 percent of these graduates had been successful.

Ninety-one programs reported that 100 percent of their graduates had taken the licensure examination, and 9 programs reported that 100 percent of their candidates who had written the examination had passed. No information concerning the reasons why a number of 1966 graduates did not take the licensure examination can be gleaned from the data.

Regional Distribution

The proportions of 1966 graduates who wrote and passed the licensure examination on first trial were examined in relation to region (Table 10-3).

Table 10-3. Regional Distribution of Associate Degree Nursing Programs by Percent of 1966 Graduates Writing the Registered Nurse Licensure Examination Who Pass on First Trial
(N=111)

Proportion of Graduates	NLN Region*									
	North Atlantic		Midwest		Southern		Western		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Less than 60	5	19	3	17	9	32	0	0	17	15
60 - 69	6	24	2	11	3	11	2	5	13	12
70 - 79	9	35	5	28	8	29	3	8	25	23
80 - 89	5	19	3	17	6	21	10	26	24	22
90 - 99	1	4	4	22	2	7	16	41	23	21
100	0	0	1	6	0	0	8	21	9	8
Total	26	100	18	100	28	100	39	100	111	100

*NLN Region I (North Atlantic) Conn., Del., D.C., Me., Mass., N.H., N.J., N.Y., Pa., R.I., Vt.
Region II (Midwest) Ill., Ind., Iowa, Kan., Mich., Minn., Mo., Neb., N.D., Ohio, S.D., Wis.
Region III (Southern) Ala., Ark., Fla., Ga., Ky., La., Md., Miss., N.C., Okla., Puerto Rico, S.C., Tenn., Tex., Va., Virgin Islands, W.Va.
Region IV (Western) Alaska, Ariz., Calif., Colo., Guam, Hawaii, Idaho, Mont., Nev., N.M., Ore., Utah, Wash., Wyo.

The findings, on a descriptive level of analysis, reveal differences in nurse licensure performance among the programs grouped into the various regions.

In the North Atlantic region, for example, 6 of the 26 programs indicated that 80 percent or more of those taking the examination had passed. Within this same region, 9 programs, the largest single category, reported that between 70 and 79 percent of their graduates who took the examination passed successfully.

In the Midwest, 8 of the 18 programs indicated that 80 percent or more of their candiates had passed. Five of the programs revealed such success for 70 to 79 percent of their candidates for licensure.

Among the 28 programs in the South, 8 programs showed that 80 percent or more of their graduates had successfully written the examination. The largest single group of programs, 9, reported that less than 60 percent of their candidates for licensure had been successful.

The picture in the Western region differed, with 8 of the 39 programs indicating that 100 percent of their candidates had passed the licensure examination, and another 26 programs reporting that 80 to 99 percent had passed. The remaining programs reported that fewer than 80 percent had passed.

MEAN SCORES FOR SCHOOL AND STATE

At the time of the survey, the 1966 examination results had not yet been made available to the various programs. The respondents were therefore requested to submit the mean scores for their school and their state for the academic year 1964-1965, the latest data available. Pertinent data were obtained for 89 programs whose graduates had taken the examination at that time.

Tables 10-4 through 10-8 present information about the percentage differences between school and state mean scores for the reporting programs, including instances when school means exceeded state means or vice versa. To obtain these data, the difference between the school and state mean scores for each of the five tests was calculated by subtraction of the absolute numbers. The difference obtained was then divided by the given state mean score for that test. For example, the difference between a school mean of 600 and a state mean of 500 is 100. Dividing 100 by 500 results in the percentage difference (of 20) by which the school mean exceeds the state mean. The same procedure is followed when the state mean exceeds the school mean.

When school means were higher than state means, the percentage differences for the specific tests (medical nursing, surgical nursing, obstetric nursing, nursing of children, and psychiatric nursing) generally ranged from less than 5 to more than 10 percent. When state means exceeded school means, the range of percentage differences was somewhat wider: from less than 5 to over 20 percent. For none of the programs did a school mean exactly equal that of the state in the same test.

Tests in the Licensure Examination

Table 10-4 shows the calculated percentage differences, based on state and school mean scores reported for the medical nursing test.

Table 10-4. Associate Degree Nursing Programs, by Percent Difference of School and State Mean Scores of the Registered Nurse Licensure Test in Medical Nursing (1964-1965)
(N=89)

Percent Difference	Programs	
	No.	%
When school means exceed state means		
10 or more	0	0
5 - 9	7	8
Less than 5	15	17
Subtotal	22	25
When state means exceed school means		
Less than 5	21	24
5 - 9	18	20
10 - 14	12	13
15 - 19	11	12
20 or more	5	6
Subtotal	67	75
Total	89	100

In one quarter of the programs, school means exceeded state means, compared to three quarters of the programs in which the opposite was true. When school means exceeded state means, the percentage differences tended to be less than 5 percent (15 out of 22 programs); the differences were greater when state means exceeded school means, although 21 out of 67 programs still reported percentage differences of less than 5 percent.

On the surgical nursing examination, close to one third of the programs included in the tabulations attained higher mean scores than those for their respective states (Table 10-5). For 13 out of 28 programs within this group with higher school means, the percentage difference in scores ranged from 5 to 9 percent, with most of the remaining programs showing differences of less than 5 percent.

Table 10-5. Associate Degree Nursing Programs, by Percent Difference of School and State Mean Scores of the Registered Nurse Licensure Test in Surgical Nursing (1964-1965)
(N=89)

Percent Difference	Programs	
	No.	%
When school means exceed state means		
10 or more	4	4
5 - 9	13	15
Less than 5	11	12
Subtotal	28	31
When state means exceed school means		
Less than 5	21	24
5 - 9	17	19
10 - 14	12	13
15 - 19	7	8
20 or more	4	4
Subtotal	61	69
Total	89	100

Among the programs with mean scores lower than those for the state, the highest proportion showed percentage differences of less than 5 percent (21 out of 61). The differences among the remaining programs ranged from 5 to 20 percent or more.

For the obstetric nursing test (Table 10-6), the school mean scores exceeded those of the state in more than a third of the 89 programs. For most of the programs in this group (19 out of 31), the differences in scores again were less than 5 percent.

Similarly small percentage differences were calculated for the largest number of programs among the 58 whose means did not exceed those for the state. Thirteen among the programs in this group fell into the 5 to 9 percent category of percentage differences.

The percentage differences between the school and state mean scores for nursing of children are shown in Table 10-7. In this instance, 28 percent of the programs had mean scores higher than those for their states, compared to 72 percent in which they were lower. When school means exceeded those for the state, the percentage differences were less than 5 percent for most of these programs (21 out of 25). When state means were higher than school means, such differences were also less than 5 percent for 23 out of 64 programs. The remaining 41 programs were more widely distributed among the categories of percentage differences. For 29 programs, the differences varied between 5 and 14 percent.

Table 10-6. Associate Degree Nursing Programs, by Percent Difference of School and State Mean Scores of the Registered Nurse Licensure Test in Obstetric Nursing (1964-1965)
(N=89)

Percent Difference	Programs	
	No.	%
When school means exceed state means		
10 or more	4	4
5 - 9	8	9
Less than 5	19	21
Subtotal	31	35
When state means exceed school means		
Less than 5	28	31
5 - 9	13	15
10 - 14	10	11
15 - 19	3	3
20 or more	4	4
Subtotal	58	65
Total	89	100

Table 10-7. Associate Degree Nursing Programs, by Percent Difference of School and State Mean Scores of the Registered Nurse Licensure Test in Nursing of Children (1964-1965)
(N=89)

Percent Difference	Programs	
	No.	%
When school means exceed state means		
10 or more	2	2
5 - 9	2	2
Less than 5	21	24
Subtotal	25	28
When state means exceed school means		
Less than 5	23	26
5 - 9	19	21
10 - 14	10	11
15 - 19	6	7
20 or more	6	7
Subtotal	64	72
Total	89	100

The highest proportion of programs with mean scores exceeding those for the state were reported for the psychiatric nursing test (Table 10-8). For most of these programs (22 out of 33), the differences between school and state test scores amounted to less than 5 percent. When state means exceeded those for the schools, as they did for 56 of the programs, the differences were most often also less than 5 percent. For an additional 18 of these programs, such differences ranged between 5 and 9 percent.

Table 10-8. Associate Degree Nursing Programs, by Percent Difference of School and State Mean Scores of the Registered Nurse Licensure Test in Psychiatric Nursing (1964-1965)
(N=89)

Percent Difference	Programs	
	No.	%
When school means exceed state means		
10 or more	3	3
5 -9	8	9
Less than 5	22	25
Subtotal	33	37
When state means exceed school means		
Less than 5	24	27
5 - 9	18	20
10 - 14	9	10
15 - 19	3	3
20 or more	2	2
Subtotal	56	63
Total	89	100

For all 5 of the tests in the nurse licensure examination, the percentage differences between school and state mean scores were within less than 5 percent, plus or minus, in 41 percent of the programs for medical nursing, in

Table 10-9. Associate Degree Nursing Programs, by Number of Tests in the Examination for Registered Nurse Licensure on Which School Means Exceeded State Means (1964-1965)
(N=89)

Number of Tests*	Programs	
	No.	%
None	38	43
1	15	17
2	12	13
3	6	7
4	8	9
5	10	11
Total	89	100

*Tests include: medical nursing, surgical nursing, obstetric nursing, nursing of children, and psychiatric nursing.

36 percent for surgical nursing, in 52 percent for obstetric nursing, in 50 percent for nursing of children, and in 52 percent for psychiatric nursing.

The number of tests in the registered nurse licensure examination for which school mean scores exceeded those for the state are shown in Table 10-9.

In 57 percent of the programs, school means exceeded state means on at least one test. Conversely, in 43 percent of the programs, school means did not exceed state means on any test.

Regional Distribution

The relationship between the regional distribution of 89 programs and the number of tests in the registered nurse licensure examination on which school means exceeded those of their respective states will be analyzed descriptively.

As shown in Table 10-10, 43 percent of the programs had school means that failed to exceed state means on any of the 5 tests. The largest group of programs (35) were in the West, and among these programs approximately one quarter reported mean scores that topped those of the state on 4 or 5 tests. In the North Atlantic region, 6 out of 24 programs had means that exceeded those of the state on 1 test, and in the South 6 out of 16 programs reported a similar achievement on 2 or 3 tests. Only 14 programs were in the Midwestern region and among these, 3 reported higher school means than state means on 4 or 5 tests.

Table 10-10. Regional Distribution of Associate Degree Nursing Programs, by Number of Tests in the Examination for Registered Nurse Licensure (1964-1965) on Which School Means Exceeded State Means
(N=89)

Number of Tests*	Regions									
	North Atlantic		Midwest		Southern		Western		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
1	6	25	2	14	3	19	4	11	15	17
2 - 3	3	12	1	7	6	37	8	23	18	20
4 - 5	3	12	3	22	3	19	9	26	18	20
None	12	50	8	57	4	25	14	40	38	43
Total	24	100	14	100	16	100	35	100	89	100

*Tests include: medical nursing, surgical nursing, obstetric nursing, nursing of children, and psychiatric nursing.

Preparation of Director

No statistically significant differences were shown by the chi square test among 87 programs, grouped as shown in Table 10-11, when the formal preparation of the program director for community college teaching was analyzed in relation to number of tests in the nurse licensure examination on which school means exceeded those of the state. Descriptively, it can be noted that among the 31 programs whose directors had such formal preparation, 29 percent reported mean scores exceeding those of the state on 2 or 3 tests, and another 16 percent, on 4 or 5 tests. Among the 56 programs whose directors lacked such preparation, 23 percent achieved higher mean scores than those reported for the state on 4 or 5 tests, whereas another 16 percent of the programs reported such achievement on 2 or 3 tests.

Table 10-11. Associate Degree Nursing Programs Reporting Formal Preparation of Director to Teach in Community Colleges, by Number of Tests in the Examination for Registered Nurse Licensure (1964-1965) on Which School Means Exceeded State Means (N = 87)

Number of Tests*	Formal Preparation of Director					
	Prepared		Not Prepared		Total	
	No.	%	No.	%	No.	%
1	3	10	12	21	15	17
2 - 3	9	29	9	16	18	21
4 - 5	5	16	13	23	18	21
None	14	45	22	39	36	41
Total	31	100	56	100	87	100

($X^2 = 3.82$; df = 3; $X^2_{95} = 7.82$)

*Tests include: medical nursing, surgical nursing, obstetric nursing, nursing of children, and psychiatric nursing.

TEST RESULTS FOR GRADUATES FROM THREE TYPES OF NURSING PROGRAMS

Additional information is offered (Tables 10-12 and 10-13) about test results for all graduates from the three types of basic nursing programs who took the registered nurse licensure examination during the academic year 1964-1965, in order to provide a broader perspective for the interpretation of test results from each type of program. The number of candidates for licensure and the mean standard score for each test, by type of program, is shown in Table 10-12.

Table 10-12. Performance of Candidates on the Registered Nurse Licensure Examination, by Type of Program (1964-1965)*

Type of Program	Number of Candidates	Mean Standard Scores				
		Medical Nursing	Surgical Nursing	Nursing in Obstetrics	Nursing of Children	Psychiatric Nursing
Baccalaureate	5,535	542	535	568	554	559
Diploma	29,952	518	514	510	523	514
Associate degree	3,026	494	500	514	505	514

* Data were obtained from the Measurement and Evaluation Services of NLN.

Three hundred and fifty is considered a passing score by virtually all state boards of nursing, so that if a candidate exceeds 350 on all 5 tests, it is generally assumed that she passed.

For all 5 tests, the highest mean standard scores were achieved by candidates from baccalaureate programs, with those from associate degree and diploma programs showing some similarity in test results. All but one of the mean standard scores for baccalaureate, diploma, and associate degree programs met or exceeded the national average standard score of 500 that is projected in the standardization of the tests. The only exception was a score of 494 attained by candidates from associate degree programs on the test in medical nursing.

The percentages of candidates whose lowest score on the registered nurse licensure examination equaled or exceeded given standard scores are shown in Table 10-13. Variations in percentages among the three types of programs are evident for every standard score. Considering the typical passing score level of 350, it can be noted that it was equaled or exceeded by 79 percent of associate degree candidates, 87 percent of diploma, and 93 percent of baccalaureate graduates who had written the examination.

Table 10-13. Percentage of Candidates Who Met or Exceeded Specified Standard Scores on the Registered Nurse Licensure Examination, by Type of Program (1964-1965)*

Type of Program	Number of Candidates	Percentage of Candidates Whose Lowest Score Equaled or Exceeded:					
		300	325	350	375	400	500
Baccalaureate	5,535	97	95	93	88	82	42
Diploma	29,952	94	90	87	79	70	26
Associate degree	3,026	89	84	79	71	63	25

* Data were obtained from the Measurement and Evaluation Services of NLN.

Changes over time in the percentage of candidates from the three types of basic nursing programs who, on first trial, exceeded the score of 350 on all 5 tests of the registered nurse licensure examination are shown in Table 10-14. The findings are presented for three time periods of two-year intervals.

Table 10-14. Percentage of Candidates Who on First Trial Exceeded the Score of 350 on All Five Tests of the Registered Nurse Licensure Examination, by Type of Program (1959-1965)*

Type of Program	Academic Years by Percentage of Candidates		
	1959-1961	1961-1963	1963-1965
Baccalaureate	97	96	92
Diploma	87	88	86
Associate degree	90	84	78
Total	89	89	86

* Data were obtained from the Measurement and Evaluation Services of NLN.

For the two time periods between 1959 and 1963, test scores for 89 percent of all candidates exceeded 350. Between 1963 and 1965, the percentage decreased to 86.

Taken individually, between 1959 and 1965, each type of program showed some decrease in the proportion of candidates whose scores exceeded 350, but the decrease for associate degree programs was most marked.

FOLLOW-UP OF GRADUATES

Systematic follow-up of graduates, as one facet of program evaluation, was another area of inquiry. The respondents were asked to indicate whether or not they had formulated a plan for such follow-up and, if so, what approaches they had used to implement it.

Approximately two thirds of the programs reported plans to keep informed about the activities of their graduates (Table 10-15). Table 10-16 shows the means which they employed toward this end.

Table 10-15. Associate Degree Nursing Programs, by Availability of Follow-up Plans for Graduates
(N=201)

Plans Available	Programs No.	Programs %
Yes	131	65
No	55	27
No response	15	7
Total	201	100

Two main follow-up approaches emerged from the findings: questionnaires to graduates and to employers, and various meetings. Fifty-three percent of the programs relied on questionnaires directed to the graduates and to their employers. Nearly one quarter of the respondents utilized, in addition to questionnaires, alumni or other meetings as a source of follow-up information. Smaller proportions of respondents referred to varying combinations of these methods.

Table 10-16. Associate Degree Nursing Programs, by Method of Follow-up for Graduates
(N=131)

Method of Follow-up	Programs No.	Programs %
Questionnaires to graduates and employers	70	53
Questionnaires to graduates, employers, and meetings	30	23
Questionnaires to graduates only	19	15
Questionnaires to graduates and meetings	7	5
Meetings only	2	2
Questionnaires to employers only	1	1
Questionnaires to employers and meetings	1	1
Other	1	1
Total	131	100

The specific follow-up methods were examined in relation to initial NLN consultative assistance in exploring the feasibility of establishing the program. By means of the chi square test, statistically significant differences were found among the programs that either had or had not received such assistance (Table 10-17).

Thus, among the 84 programs that had NLN consultative assistance during the establishment phase, close to two thirds used questionnaires to graduates and employers as a follow-up method. Another quarter of the group, in addition to the above means, also established follow-up relationships with their former students at alumni and other meetings.

Table 10-17. Associate Degree Nursing Programs Reporting Initial NLN Consultative Assistance, by Means Employed for Follow-up of Graduates
(N=130)

Follow-up Means	NLN Assistance					
	Assisted		Not Assisted		Total	
	No.	%	No.	%	No.	%
Questionnaire to:						
Graduates	8	10	11	24	19	15
Graduates and employers	51	61	19	41	70	54
Questionnaires to graduates, employers, and meetings	21	25	9	20	30	23
Other combinations	4	5	7	15	11	8
Total	84	100	46	100	130	100

$(X^2 = 9.55;\ df = 3;\ X^2_{95} = 7.82)$

Table 10-18. Graduates from Associate Degree Nursing Programs (1966), by Postgraduate Activity
(N=2,927)

Activity	No. of Programs	Graduates	
		No.	%
Employed in a hospital	106	2,087	71
Neither employed nor continuing education	43	81	3
Continuing formal education, nursing	43	79	3
Employed in an office or agency other than hospital or nursing home	47	72	2
Employed in a nursing home	18	22	1
Continuing formal education, not nursing	14	18	1
Employed in private duty nursing	13	17	+
Other health field occupation	7	7	+
Other occupation, not health field	2	2	+
Not known	40	542	19
Total		2,927	100

+Less than 1 percent.

Among the 46 programs that had not had initial NLN consultative assistance, 41 percent also sent questionnaires to graduates and employers for follow-up purposes, whereas 24 percent contacted graduates only. One fifth of the programs sent questionnaires to both employers and graduates and also utilized meetings as a follow-up method. Another 15 percent of the programs informed themselves of graduate activities by different combinations of the listed means, such as meetings only, questionnaires to graduates and meetings, and so on.

ACTIVITIES OF 1966 GRADUATES

Activities of 1966 graduates, as reported by the programs, are presented in Table 10-18, with 114 of those programs that graduated a class in 1966 reporting the total number of students in the graduating class. Forty of these programs offered no specific information about the postgraduate activities of 542 graduates, constituting 19 percent of a total of 2,927 graduates reported.

By far the largest proportion of graduates, representing nearly three quarters of the entire group, were employed in hospitals. Small proportions among the graduates continued with their formal education, either in nursing (3 percent) or in other areas of study (1 percent). An equally small proportion of these newly graduated students were neither employed nor continuing with formal education. The remaining graduates were actively employed in offices or agencies, nursing homes, and as private duty nurses. Some functioned in other health occupation areas or elsewhere.

Thus, of a total of 2,927 graduates from associate degree nursing programs, a minimum of 2,133 (73 percent) were employed in nursing or related health occupations during the year following their graduation. The possible addition of a number of nurses whose postgraduate activities were not indicated and of those who may have worked in doctors' offices or in health-related agencies would undoubtedly increase this proportion.

SUMMARY

The vast majority of 1966 graduates from associate degree nursing programs took the licensure examination and generally passed on the first attempt.

Mean scores attained for individual programs in given states in 1964-1965 were generally lower than those for the respective states, although there were instances when the reverse was true. Depending upon area of knowledge tested, between a quarter to approximately a third of the programs had scores that exceeded those attained for the states on each of the 5 tests in the examination.

A breakdown of the percent differences between program and state mean scores showed that they tended to be less than 5 percent, although greater differences were apt to be found when the state scores exceeded those for the programs. A majority of programs, however, had mean scores that exceeded those of the state on at least 1 of the 5 tests.

Virtually all mean standard scores obtained by candidates from the three types of basic programs on the registered nurse licensure examination met or exceeded the established standard score of 500.

Over time, the proportion of candidates whose lowest attained scores exceeded the generally accepted passing score of 350 decreased for graduates from baccalaureate, associate degree, and diploma programs.

The regions in which high proportions of graduates were more apt to be reported as successful in passing the registered nurse licensure examination on first trial were the West and the Midwest. In the Southern and North Atlantic regions, smaller proportions tended to be successful candidates the first time they took the examination.

Similarly, the regions in which programs most often reported mean scores on the registered nurse licensure examination that exceeded those of the state on 4 or 5 tests were the West and the Midwest. In the Southern and North Atlantic regions, programs most often reported mean scores that topped those of the state on fewer tests.

Almost two thirds of the programs had follow-up plans that enabled them to keep informed about the activities of their graduates. Most often, these involved both the graduates themselves and their employers as sources of information. The majority of 1966 graduates became hospital employees, with only small numbers either working in other areas within or outside the field of nursing, pursuing their education, or doing neither. Among those who did pursue their education, a somewhat greater number did so in nursing rather than nonnursing programs.

REFERENCE

[1] American Nurses' Association. Examination for State Licensure to Practice Nursing. New York, the Association, 1963. p. 3.

CHAPTER XI

RESOURCES AND FACILITIES

For the effective development of any nursing program, appropriate physical resources are required within the college and the clinical areas in which faculty and students function. For information about such resources and facilities in associate degree programs, respondents were asked to indicate the availability of class and conference rooms and reference materials, as well as office, dressing, and storage space in both the college and the cooperating institutions. They were also asked if they had combined or separate library facilities. Whether or not nursing faculty members participated in the selection of materials for library and audio-visual facilities, if these were available, was another question.

COLLEGE FACILITIES

As shown in Table 11-1, three quarters or more of the programs indicated the availability of classrooms, office space, reference materials, and storage space within their respective institutions: Slightly more than half of the respondents had conference rooms for their faculties, and approximately one quarter had dressing space.

Table 11-1. Associate Degree Nursing Programs Reporting College Facilities for Faculty and Students, by Indication of Availability
(N=201)

Indication of Availability	Type of Facility											
	Classrooms		Office Space		Reference Materials		Storage Space		Conference Rooms		Dressing Space	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Indicated	158	79	156	78	156	78	150	75	104	52	55	27
Not indicated	43	21	45	22	45	22	51	25	97	48	146	73
Total	201	100	201	100	201	100	201	100	201	100	201	100

Although on-campus living may be assumed as partial explanation for the small percentage of programs having dressing space in colleges, little explanation can be offered for the 21 percent of the programs that apparently lacked any classrooms on college premises. Possibly this figure means that no classrooms were available for the exclusive use of the nursing program.

FACILITIES IN COOPERATING INSTITUTIONS

Information related to the availability of similar facilities in cooperating institutions is presented in Table 11-2. Since the number of cooperating institutions for given programs varied considerably, the respondents were asked to indicate whether the submitted data related to all, more than half, less than half, or none of the cooperating institutions. The table has been arranged in order of diminishing frequency of mention of available facilities for all cooperating institutions.

Thus, close to three quarters of the programs reported that conference rooms were available to faculty and students in all their cooperating institutions. More than half of the programs referred to similar conditions in all such institutions in regard to reference materials and dressing space. Thirty-eight percent of the programs had classrooms at their disposal in all the institutions they utilized for clinical teaching experience.

Only 24 percent of the programs had storage space, and 18 percent office space, available in all cooperating institutions. In reference to storage space, more than a quarter of the programs indicated that none was available. Similarly, as far as office space was concerned, approximately one third of the programs reported its unavailability in any of the cooperating institutions.

Table 11-2. Associate Degree Nursing Programs Reporting Availability of Facilities in Cooperating Institutions for Faculty and Students, by Proportion of Cooperating Institutions
(N = 201)

Proportion of Cooperating Institutions	Type of Facility											
	Conference Rooms		Reference Materials		Dressing Space		Classrooms		Storage Space		Office Space	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Available in all cooperating institutions	140	70	117	58	110	55	77	38	49	24	37	18
More than half	20	10	23	11	24	12	22	11	14	7	19	9
Half	10	5	9	4	16	8	17	8	14	7	10	5
Less than half	13	6	22	11	16	8	22	11	18	9	26	13
None	5	2	6	3	17	8	29	14	52	26	68	34
No response or not codable	13	6	24	12	18	9	34	17	54	27	41	20
Total	201	100	201	100	201	100	201	100	201	100	201	100

Between the two extremes of total availability of facilities and complete unavailability were small proportions of programs provided with a variety of physical resources in some but not all of the institutions cooperating in the student teaching process.

LIBRARY FACILITIES

Information presented in Table 11-3 reveals that the vast majority of programs shared the available library facilities with other instructional units in the school, although a number of programs mentioned separate facilities in

Table 11-3. Associate Degree Nursing Programs, by Type of College Library Facilities Available for Faculty and Students
(N=201)

Library Facility	Programs	
	No.	%
Combined library, with or without other facilities	184	92
Separate library	12	6
No response	5	2
Total	201	100

addition to the combined ones. Only a few programs had their own libraries and, by implication, did not use others presumably available on the premises.

FACULTY PARTICIPATION IN SELECTION OF LIBRARY AND AUDIO-VISUAL MATERIALS

Nearly all of the programs reported that their faculty members actively participated in the selection of library and other audio-visual materials available to their students (Table 11-4). Only one program indicated that this was not the case; another four did not respond.

Table 11-4. Associate Degree Nursing Programs, by Indication of Faculty Participation in the Selection of Library and Audio-visual Materials
(N = 201)

Faculty Participation	Programs	
	No.	%
Yes	196	97
No	1	+
No response	4	2
Total	201	100

+Less than 1 percent.

SUMMARY

Facilities for program development varied considerably among programs and between college and cooperating institution resources.

In colleges, classrooms, reference materials, office and storage space were generally available to faculty and students from nursing programs, although this was not true for all programs. Conference rooms and particularly dressing space were less common accommodations.

The situation in cooperating institutions was somewhat different. Although conference rooms, reference materials, and dressing space were available for use in a majority of institutions, other facilities were provided in fewer or none of them.

Faculty and students from nursing programs most often used combined library facilities, with the faculty participating in the evaluation of the suitability of library and other audio-visual resource materials by being involved in the selection of these materials for program use.

CHAPTER XII

PROGRAM COST

The implementation of recommended plans and programs to increase the supply of nurses depends largely upon financial considerations. Technical programs, generally, have been considered more costly than other programs of study since they require laboratory facilities for student preparation. This has been particularly true for technical programs in nursing, since these depend on patient care facilities for teaching purposes and the corollary requirement of a high teacher-student ratio for the clinical areas.*

To determine what the operating costs for existing associate degree nursing programs were and whether such costs were greater than those for other programs in the school, the respondents were asked to indicate if the college had ever tried to determine the cost of operating the nursing program. If so, specific information was requested about the year for which the cost was computed; the student enrollment during that year; and the actual cost of operating the program for the year chosen for study. How the cost for the nursing program compared with that of other instructional programs in the college was also asked. Additional inquiries were made about the existence of a separate budget and federal support for the nursing program.

Designated years were coded on a fiscal basis. Whenever an academic year-range was indicated, the first year mentioned was coded as that for which cost was determined.

Forty-seven of the 201 programs reported that their colleges had tried to determine the yearly cost of operating the nursing program and, of these, only 38 actually provided pertinent information for analysis. For presentation of findings related to cost determination, the data were arranged according to year, since the assumption of fluctuations in the cost of living was made.

COST DETERMINATION

The respondents were asked: "Has the college tried to determine the cost of operating the nursing program for a given year?"

Only 47 programs reported that their institutions had tried to determine such costs (Table 12-1). Factors related to cost determination were reported by 38 programs and these are presented in Table 12-2.

Table 12-1. Associate Degree Nursing Programs, by Indication of Cost Determination for Operating a Program for One Year (N=201)

Cost Determination	Programs	
	No.	%
Yes	47	23
No	145	72
No response	9	4
Total	201	100

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*Among 66 junior community colleges that decided not to establish a nursing program, 54 percent felt that the estimated cost of the program indicated it would be among the most costly offerings of the college. (Mildred S. Schmidt. Factors Affecting the Establishment of Associate Degree Programs in Nursing in Community Junior Colleges. New York, National League for Nursing, 1966. p. 31.)

Table 12-2. Associate Degree Nursing Programs Indicating Region, Financial Support, Enrollment, and Program Cost, by Year Cost Determination Was Done
(N=38)

Year	Programs (N=38)		NLN Region*				Financial Support**		Enrollment		Cost	
	No.	%	I	II	III	IV	Public	Private	Range	Differences in Extremes of Range	Range	Differences in Extremes of Range
Preceding 1961	3	8	3				3		43-62	19	$65,317- 120,721[a]	55,404
1961	2	5				2	2		33-80	47	66,000- 72,500	6,500
1962	0	0										
1963	2	5			1	1	2		20-36	16	12,000- 62,000	50,000
1964	2	5		1	1		2		45-149	104	51,900- 100,724	48,824
1965	16	42	1	7	7	1	13	3	25-119[b]	94	24,772- 188,828[a]	164,056
1966	13	34	2	7	3	1	11	2	24-70[b]	46	28,000- 72,000[c]	44,000

* Region I (North Atlantic); Region II (Midwest); Region III (Southern); Region IV (Western).

** Information obtained from Research and Development, National League for Nursing, 1967.

[a] Total cost not given for one program.

[b] Enrollment not given for one program.

[c] Total cost not given for three programs.

For the groups of programs represented in each study year, additional information relating to region and financial support is provided as a more meaningful frame of reference for the enrollment and cost figures. The latter two variables are given in range form, representing the programs that did make cost determinations during a given year.

Slightly more than three quarters of all the determinations that were done were carried out during 1965 and 1966 and were concentrated mainly in the Midwestern and Southern regions of the country. With the exception of 5 programs that were privately supported, the programs received public financial support.

There seems to be no visible pattern over the years in the range of enrollments, although the upper limits were higher for 1964 (149) and 1965 (119) than for the other years represented. The wide enrollment ranges for these two years suggest greater variations in the size of student bodies enrolled in 1964 and 1965 than in the other years listed.

The cost figures submitted do not follow a visible year-pattern sequence, either, although they offer strong evidence of considerable variation in operating costs of associate degree nursing programs throughout the country.

Since the number of programs reported is so small and since cost figures as well as those for enrollment are presented in the form of ranges, it is difficult to pinpoint actual enrollment-cost relationships and to generalize from these findings. However, a comparison of the calculated differences in the extremes of the established ranges reveals that greater differences in costs were not necessarily related to greater differences in size of enrollments.

COST FOR NURSING VERSUS OTHER PROGRAMS

Information was sought concerning the possibility of cost differences between the nursing and other technical programs in a given college.

Only 54 percent of the programs responded to this question. As shown in Table 12-3, those which did offer some information were nearly equally divided between the 55 programs that indicated it costs more to operate a nursing program than a technical program of a different nature, and the 48 programs claiming that such information was not available to them. Nearly three quarters of the respondents either did not know what the comparative cost figures were or did not choose to indicate this information.

Table 12-3. Associate Degree Nursing Programs, by Cost Comparison for Nursing and Other Instructional Programs in the College
(N=201)

Cost Comparison	Programs	
	No.	%
Cost greater for nursing program	55	27
Cost equal for nursing and other programs	5	2
Cost smaller for nursing program	2	1
Information not available	48	24
No response	91	45
Total	201	100

BUDGETARY PROVISIONS

Seventy percent of the programs indicated that they had a separate budget for the nursing program, while more than a quarter of the group stated that they did not (Table 12-4). Only 4 programs failed to answer this question or provided non-codable responses.

Table 12-4. Associate Degree Nursing Programs, by Indication of a Separate Program-Budget
(N=201)

Separate Budget	Programs	
	No.	%
Yes	140	70
No	57	28
No response or not codable	4	2
Total	201	100

FEDERAL SUPPORT

Although the vast majority of associate degree nursing programs were publicly supported, one question aimed to determine how many of the respondent programs claimed federal support other than research grants.

Only 17 percent of the programs indicated current support from the federal government, compared to 78 percent that did not. A small proportion of the programs revealed they had been helped financially in the past through federal sources (Table 12-5).

Table 12-5. Associate Degree Nursing Programs, by Indication of Federal Support Other Than Research Grants
(N=201)

Support	Programs	
	No.	%
No support	157	78
Support, current	35	17
Support, past only	5	2
No response	4	2
Total	201	100

It is assumed that references were made only to direct federal support to the program or its host school, and that "hidden" support of this nature received through local or state resources was not alluded to by the respondents.

SUMMARY

Only a small proportion of the programs had tried to determine how much it cost to operate the nursing program in a community college. Such determinations were carried out, mainly during 1965 and 1966, particularly in the Midwestern and Southern regions of the country.

No definite cost-pattern emerged from the findings either in year sequence or in comparison of cost and enrollment range-differences over the years. The findings offer evidence that considerable variations did exist in the operational costs of associate degree nursing programs.

As a total group, the programs generally functioned on separate budgets. Few claimed to have received federal support other than research grants.

CHAPTER XIII

DISCUSSION

A survey such as this one can, in some ways, be compared to an aerial photograph of a terrain. In the presentation of findings, the focus has been on the topography of the programs. The configuration of emerging features revealed inequalities of surface, obvious both in high and low reliefs.

Not the least noticeable peak has been the steady growth in the number of associate degree nursing programs over a short period of time. Within a year after the collection of the data reported here, the total number of these programs had increased by 28 percent. This constitutes a percentage high enough to render obsolete some of the findings presented in this report, if these new programs differ substantially from those surveyed.

Yet such rapidity of program establishment is not unique in nursing history and, judging from available statistics, has been surpassed at other times. It has been pointed out, for example, that:

> In 1890, there were only thirty-five training schools; by 1900 there were 432. During the next decade, an additional 700 were founded; and from the years 1910 until 1920, yet another 600 were founded. The number of graduate nurses and students combined shot from 1,500 in 1890 to 11,000 at the century's close. Ten years later this female labor force had reached 82,000, and by 1920 it soared to almost 150,000.[1]

This reference, however, was to "... a flood of undesirable recruits, who were poorly trained in the nation's rapidly multiplying training schools."[2] By comparison, the present upsurge of associate degree nursing programs is slow, their contribution to the nursing labor force still miniscule. Furthermore, when the two sets of circumstances are analyzed rather than simply compared, differences of considerably greater importance than those inherent in mere numbers emerge.

Despite the common leitmotif that has characterized the evolution of modern nursing education--namely, the ultimate aim of better serving the health needs of the country--the educational means employed to achieve this goal have differed at different points in time. Representing the tenor of a given era, these approaches to serving the health needs of mankind have not been interchangeable substitutions but, rather, extrapolations of antecedent conditions, each seemingly coming at its own good time in advancing the next step. Considered a function of socio- and psychodynamic influences, the various educational efforts have, to a considerable degree, expressed prevalent professional motivations and strivings in nursing.

Thus it would seem that the hospital phase of "nurses' training," born of pressing institutional needs for free nursing labor and the prevailing cultural determinants operating in favor of establishing such training schools, was an important step in the sequence of events that led foresighted educators to develop more progressive ideas for the education of nurse practitioners. It is to the greater glory of these pioneers, striving over the years to place nursing education within the framework of general education in the United States, that the present increase in associate degree nursing programs can be related both to the service needs of the community and the educational rights and prerogatives of nurse practitioners without invoking the specter of exploitation and financial dependency.

This move toward "higher education" by means of preparing the bulk of future nurses at the technical level of education and within the general education framework has not gone unchallenged nor has it, so far, represented any single therapeutic panacea for the present ills in nursing education.* It has, however, given rise to a wide variety of reactions that nevertheless denote a common search for goals in nursing education.

There are those who voice their serious concern about the wisdom of eliminating diploma programs and their contribution to the ranks of nursing practitioners.[3] Others regard the melange of educational institutions and degrees in nursing as totally confusing.[4] Still others, considering ferment as a source of educational improvement, have been excited about the experimental endeavors in education for nursing at many levels.[5]

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* Community colleges, in 1963 and 1964, found their role clarified by Federal enactments that recognized junior colleges as institutions of higher education. (James W. Thornton, Jr. The Community Junior College, 2d ed., New York, John Wiley and Sons, 1960. p. 99.)

Cutting across all considerations and debate, however, is the fact that the establishment of nursing programs in community colleges is by no means a problem-free process; that, despite the establishment of a new type of program in a new setting, problems evolved over the years do not disappear overnight, but cling vestigially; and that a different academic setting is not necessarily devoid of problems of its own.[6]

Thus, nursing education in community colleges carries a multiple responsibility: to reject those aspects of antecedent educational activity considered as undesirable, to develop a new educational approach in nursing, and, at the same time, to adjust to a new academic environment and all the problems inherent in this process. The findings of this study give evidence that associate degree nursing programs have been making efforts in these directions.

It was encouraging to find, for instance, that nearly all the programs involved in the survey had developed objectives, mostly in written form, in the attempt to delineate their approach toward specific educational goals. How well defined these objectives are and to what degree they differ from those established for other programs are areas that were not explored but seem ripe for study. Their translation into functioning aspects of program development were, to some degree, discernible in the survey findings.

Most programs had availed themselves of professional counseling, consultation, and pertinent information during the establishment period. Most programs were in schools that were regionally accredited, but only a small percentage (15 percent) had NLN accreditation.

It may be assumed, therefore, that the programs had had the benefit of professional expertise, had met the educational standards established by regional accrediting associations, and may or may not have met those of the national accrediting body. The fulfillment of educational objectives, however, is reflected in the sine qua non of the latter, namely, the curriculum and the means employed to implement it.

Over the past decade and a half, those subscribing to the educational philosophy basic to technical education in nursing have strongly asserted that associate degree nursing programs were not revisions or continuations of a three-year hospital program, were not shortened versions of such programs, and were not lower division courses required for later specialization. Rather, they have been seen as unique within themselves in "gestalt" and purpose.

On the other hand, considerable criticism has been leveled against the small amount of time allotted in these programs for clinical practice to attain necessary practical skills. The counter-argument is that broad groupings of subject matter considerably reduce repetitive instruction and provide for the presentation of material in a relatively short period of time.

According to the findings of this survey, differences do exist in the length of the various programs and in their curriculum requirements. Associate degree nursing programs have, by and large, adhered to the calendar or academic year and have offered broad groupings of subject matter and combinations that included medical, surgical, and psychiatric nursing. However, variations in the total program length are evident in the addition of one or more summer sessions, of undetermined lengths, to study years.

It might be noted that the combination of several courses into one broad curriculum unit did not result in appreciably larger credit requirements for the combined course. This strongly emphasizes time-saving possibilities in the elimination of repetitive educational experiences.

A striking characteristic of the curriculums in associate degree programs is the seeming absence of fairly standardized credit requirements. This is reflected in the considerable range of credits that the programs reported as requirements for the different curriculum units, although differences were not very obvious in the weekly hour equivalents required for one credit in each program activity.

Another characteristic of associate degree curriculums is the vast difference among programs in the clock hour time required for instruction in given curriculum units. This ostensibly reflects credit requirements but also suggests deviations from official requirements in terms of arbitrarily increased or decreased time allotments for study.

A third characteristic is the fairly equilateral distribution of credits for general education and nursing courses, but not of the time invested for classroom and laboratory study relating to both types of subject matter.

Although length of program cannot be equated with its richness, it may have some relationship to the amount of theoretical or clinical experience provided for its students. The length of time it takes the student to complete the program would also affect her readiness to enter the labor market as a graduate nurse.

The reported variations may be assumed to reflect differences in educational philosophy and objectives, as well as a host of other considerations that would define the scope of a given curriculum.

Since an important and unique aspect of associate degree nursing education is the opportunity for curricular experimentation, variations in program length and credit requirements may represent some experimental approaches in meeting the challenges imposed by changing nursing functions and responsibilities for patient care, the technical armamentarium necessary to carry out these functions and responsibilities, and the need to "... strike a delicate balance between preparation for the changing realities of the present and the unknowns of the future."[7]

It has been pointed out before, however, that such freedom for experimentation is not unbounded but very much subject to existing resources such as materiel and faculty as well as sanctions flowing from licensing and college authorities.[8] Whether curricular experimentation was at all or to some extent the reason for the differences noted cannot be determined from the available information. As suggested in this survey, these differences may relate to other factors such as regional distribution and, possibly, specific circumstances that distinguish the various regions. For example, programs in the South, reflecting active community planning, are "newcomers," more or less, and presumably subject to some of the difficulties that go along with the establishment process. They seemed to be more representative of programs reporting fewer full-time faculty members, smaller proportions of faculty with masters or higher degrees, and higher credit requirements, than programs from other regions in the country.

From a pragmatic point of view, and regardless of ongoing degree of experimentation in associate degree nursing programs, if any, there is thus presumptive evidence that the graduates from these various programs will have had different educational experiences, as a result of different credit requirements and time exposures to the educative process. This would seem to indicate a need for comprehensive study of the means employed for the achievement of educational goals in ADN programs, in the light of student and service needs, as well as environmental dynamics.

What and for what length of time a student is taught is, of course, only part of the story. Faculty and students are the other two ingredients of the educative process that equally affect its ultimate outcome and that loom high on the topography of associate degree nursing programs.

The problem of securing appropriately qualified teaching personnel is a fairly universal one from which associate degree nursing programs are not exempt. What is more, nursing instructors functioning on the community college level seem to be faced with a variety of problems unique to the academic setting of these institutions, in addition to those inherent in developing a new educational approach in nursing.

For example, the community college movement is being hailed as a dynamic force in the democratization of American higher education. Not the least challenging aspect of this democratization is the requirement to educate a student body distinguished by diverging demographic and personal characteristics, as well as by what has been described by some as a "built-in high failure potential."[9]

What seems outstanding about the faculty characteristics reported is that they describe an essentially "new" faculty, gaining in experience under the leadership of more seasoned program directors. It is also a faculty that has to adjust to a new or different teaching environment, adapt to a new conceptual teaching approach without much related preparation, and share with the director in the effort of program development. At the very least, this implies particularly demanding sets of circumstances for a considerable number of teachers in the program.

This was emphasized by the findings that only one fifth of all faculty members had some preparation to teach in community colleges; that two thirds of the full-time and a third of the part-time faculty, compared to 95 percent of the administrators, had earned a masters or a higher degree; and that, before assuming their present positions, a majority of instructors had had fewer than 3.6 years of teaching experience or none, compared to the majority of the administrators who had up to 9.6 years of such experience.

Thus, a majority of the instructors did not have the specific educational preparation required for teaching in community colleges. Approximately half of the programs had no faculty member so prepared; most of the remaining programs, however, had some representation. Too, the proportion of instructors with masters or higher degrees per faculty ranged from 0 to 100 percent.

A majority of programs had some faculty members on their rosters who lacked any previous teaching experience. In a third of the programs this involved 25 percent or more of the group. However, a majority of faculty members had up to 9.6 years of nursing experience, denoting varying degrees of familiarity with the clinical teaching area.

Differences in the utilization of administrators' and instructors' services were shown in terms of the respective hours spent in teaching, with an increased ratio of laboratory to class instruction time. Directors, according to a limited time sample, are more likely to be teaching in the classroom in addition to fulfilling their administrative responsibilities. Part-time faculty members, on the other hand, are more likely to be functioning in the laboratory area.

The proportion of nurse faculty members with earned degrees beyond the bachelors is perhaps as much as can be expected considering the limited number of nurses who earn the bachelors degree annually. In view of the relative youth of existing associate degree nursing programs and the relatively few institutions of higher learning offering courses specifically preparing faculty to teach in these programs, it is not surprising that only a limited number of present faculty members have this specific educational preparation.

The suggested, although tenuous, relationship between larger proportions of faculty members with masters or higher degrees and more successful performance of graduates on the licensure examination, as indicated by the proportions of programs with school means that exceeded those of the state, further points toward the need to carefully develop and weigh the composition of faculties.

The "balance" of academic expertise per faculty suggested by these findings assumes added significance when one considers the fact that the proportions presented relate to faculties of varied sizes which differ, therefore, in their intrinsic working and social relationships. A number of faculties, for instance, are not large enough to include an administrator and at least one educator for each curriculum unit, if at least four such units comprise the curriculum. This strongly suggests the possibility of cross-teaching. Faculty balance must also be considered in the light of the contribution of part-time faculty members, small though their numbers may be, whose discontinuity of function and more limited preparation conceivably add to the responsibilities of the better prepared members. An additional consideration relates to the relatively short periods of time some instructors had been members of their respective faculties, suggesting a turnover factor in addition to those of program age and expanding faculties.

The importance of the director as a pivotal and guiding figure becomes at once apparent in relation to the effort of developing program with some proportions of faculty members prepared to function in programs with different educational objectives, having limited experience in teaching, or being less than totally committed as far as time is concerned.

The fact that directors, as a separate group, generally seem better equipped for their roles than the instructors seem to be for theirs does not diminish the problem both directors and faculty face in trying to create a viable program under new and difficult circumstances. The possible supportive aspects of an organizational plan, reported by some programs, in which direct communications are established between program director and a dean of technical/vocational education call for inquiry.

There is evidence to indicate that the "acculturation" process of nursing faculty in the school community is in operation, at least in terms of nursing and other faculty using similar facilities such as the library and nursing participation on standing committees. Although such representation is far from universal, nursing and other faculties in a considerable number of community colleges seem to be working together in relation to the needs and problems of the college community in general.

The findings related to faculty and curriculum raise some intriguing questions.

For example, are differences in length of curriculum, credit requirements, and clock hour requirements in associate degree nursing programs truly a function of a new and creative approach in program development? Or do these factors reflect internalized educational values consonant with objectives of different types of programs for which some faculty members may have been prepared?

How do faculties function as single entities, considering the different numbers they comprise, with more than one quarter of them, conceivably the newly established ones, having only four or fewer members on their rosters?

How do faculties differ in program development when either none or some of their members can claim appropriate preparation to function in community colleges?

What is the difference in achievement between "newer" programs, more likely to have fewer than 25 percent of inexperienced instructors, and "older" programs, less likely to do so?

Does the fact that part-time instructors have relatively little teaching experience reflect a "younger" graduate, a nurse returnee to the nursing field, or an "older" graduate who became an educator?

Do faculty members in the nursing program have the disadvantage, congruent with limited educational preparation and teaching experience, of receiving lower salaries than their colleagues since these factors generally are considered as salary determinants?

These and other questions raised by the findings of this survey can only be answered by more focused research, done in greater depth.

It would seem that, if associate degree education in nursing is to assume successfully the responsibilities described earlier, sufficient and excellent programs should be available to prepare nurse faculty, and greater numbers of faculty should be prepared. Such preparation should be geared to effective pedagogy in terms of level on which teaching is to be done and student to be taught. Last but not least, educators of leadership quality must be produced to insure successful achievement of the objectives outlined for technical education in nursing.

The findings of this survey support these contentions just as syllogistic reasoning indicates the indisputable tie between proper preparation of sufficient faculty, creativity level of faculty, and successful development of program.

Not the least important aspects of the total educational experience in associate degree nursing programs are the circumstances and arrangements whereby students acquire the technical skills they need to function as bedside nurses.

For example, diversity in both type and numbers of institutions that cooperated with the schools in providing student educational experiences was evident. Implied, too, was the need for successful coordination between programs and institutions for continued interpretation of program objectives to changing personnel, as well as for the updating of faculty expertise in the light of changing functions in patient care.

Some programs utilized more than 18 such "clinical" areas; their accessibility to the home school varied considerably, with many not within walking distance. The number of times a student had to travel to any or many of the cooperating institutions is not apparent in the findings, although it might be assumed that experiences of limited duration, such as those offered in schools and doctors' offices, would point toward less traveling time per student and would also account for the greater number of such facilities utilized. However, in view of the use of clinical facilities in more than one hospital by most programs, it is more than likely that students spent some time in traveling to and from them, with a resultant reduction in hours spent in educational pursuits.

Since responsibility for student learning in clinical areas was fixed with college faculty, as stated in nearly all written contracts, the time factor applies not only to students but faculty members involved in clinical teaching. Although a number of cooperating institutions seemingly had not entered upon contractual arrangements with the nursing programs or their schools and, even among those that did, only 50 percent stated the expected learning experiences for students in all such contracts, faculty expenditure of time and effort in traveling to these institutions is assumed, particularly when considering the substantial number of laboratory teaching hours reported for them. The fact that this time and effort go beyond what would be necessary in the utilization of resources within the college community itself suggests the need for more careful consideration of available resources when establishing associate degree nursing programs, particularly in relation to the additional cost such time expenditure represents.

The question of operational costs for technical versus academic programs is a perennial one. For nursing programs it is particularly so, since they depend on patient care facilities and higher teacher-student ratios for clinical areas.

Consonant with the greater establishment rate of new associate degree nursing programs in the South and Midwest, most of the programs that did cost determinations over the past few years were located in these areas. A contributory factor, too, may have been the enacted federal legislation of recent origin, such as the Health Professions Education Assistance Act of 1963, the Vocational Education Act of 1963, and the Nurse Training Act of 1964, that may have prompted some of the colleges to "take stock," possibly in anticipation of federal support for the programs. The findings from the limited number of schools that had tried to determine, in dollars and cents, how much it took to run the nursing program, offer some evidence that no set patterns exist and that no specific conclusions can be drawn from these data. Variations in costs were noted, as was the possibility that greater differences in cost may not necessarily be related to greater differences in student enrollment. However, since this evidence is, in part, presumptive, generalizations cannot be made.

Interestingly enough, although the vast majority of associate degree nursing programs were publicly supported, only a small proportion mentioned federal support, either current or past. It must be assumed that references were made only to direct federal support to the program or its host school, and that "hidden" support of this nature received via local or state resources was not alluded to by the respondents.

Whether or not established differences in operating cost for associate degree programs in community colleges can, in fact, be related to available funds, program offered, efficiency in administration, or regional cost variations remains to be determined.

The ultimate effectiveness of the nursing program is, of course, largely based on the type of student attracted into and graduated from it.

Since student characteristics, of necessity, must be related to type of program offered, it is not surprising to find that students in associate degree nursing programs are representative of some of the characteristics that distinguish community college students generally. For example, education on the community college level has had a wider appeal to the "older," the community-based, and also the male student, all representing groups in the potential student reservoir not generally attracted into other nursing programs. On the other hand, some student characteristics have been typical of students in nursing all along.

Thus, there are the less than 20-year-old students that comprise close to half the student body in ADN programs and suggest the applicant seeking a technical or shorter education, or the rejectee from other programs. There are also the majority of the group, the 20-year-or-older students, suggesting the returnee to the educational fold, and the belated student euphemistically referred to by many as the "late bloomer." It is, of course, more than likely that the latter particularly may seek a technical or short educational experience.

Consonant with the characteristics of community college students in general, while the majority of nursing students in these programs were single, a sizable proportion were or had been married, adding another ingredient to the heterogeneic character of the student body.

The programs, thus, have been effective in attracting more of the older and the married students than do other nursing programs. They have also been able to draw upon a larger contingent of male students than do other nursing programs. Despite their increase in numbers, the proportion of male students in ADN programs is still miniscule, and seems particularly so when considering the fact that a larger population of male than female students generally are attending institutions of higher learning in the United States.[10]

It would be of interest to determine whether the considerable proportion of "younger" students attending associate degree nursing programs are filling a vacuum created by the exhaustion of the supply of older student prospects in the community, or if they also represent a group of nurse-aspirants who, because of closing diploma programs, choose the community college for their nursing preparation. Such determination would be doubly interesting in view of the fact that despite the "doorstep" aspects of the community colleges, a considerable proportion of nursing students do reside on campus or in off-campus approved housing, suggesting the possibility of an influx of students from outside the local community.

To what extent the strikingly female configuration of ADN programs contributes to the possible isolation from or integration into the educational and social aspects of campus life would also be an interesting area for exploration.

Some findings of the survey point to an apparent paradox between the avowed "open door" policy in community colleges, accepting all comers interested in a technical education, and reported selectivity processes in admitting students to the nursing programs.

For example, associate degree nursing programs deny admission to a considerable number of individuals who apply. Although evidence of capability required for admission generally reflects school policy, such evidence seems to be in greater demand for nursing programs compared to other instructional units in the school. Involving nearly all factors related to scholastic achievement, aptitude, and personal characteristics, it is particularly evident in reference to the personal interview.

Recent attitudes in institutions of higher learning have veered toward the personal interview as a means of detecting unusual attributes in applicants that may not be evident in high school grades or pre-entrance test scores.[11] Whether or not admission policies in associate degree nursing programs are based on similar considerations or on the traditional pre-entrance interview without the explicit aim of finding the "unusual" student, is a matter of conjecture. The proportion of applicants considered as qualified for admission, however, varied with region. The reasons for rejection of applicants most often given were those traditionally associated with other nursing programs, namely, poor academic accomplishment.

Traditional, too, is the mutual selectivity process whereby not only may the school deny admission to an applicant, but also the qualified applicant may choose not to enter the program that has accepted her. It is, however, possible that these individuals, by virtue of applications to a number of schools, are not lost to nursing but are enrolled in nursing programs of their choice.

There is no doubt that admission policies represent a facet of the weeding out process that reduces the potential number of candidates for nursing programs, but one that may be classified as an extrinsic factor. Another facet of this weeding out process, and the more costly one in terms of time, effort, money, and loss of potential nurse power, is the intrinsic one of student withdrawal after admission to the nursing program.

A striking finding is the fact that withdrawal rates for the first year of study, assumed to be the more vulnerable one, were considerable and involved anywhere from less than a fifth to more than half of a group. As with reasons for denial of admission, reasons for withdrawal also closely resembled those for other nursing programs and were mainly due to academic failure, a reason at times applicable to more than a third of a given class. Since the students were primarily female, the proportions leaving for matrimonial and associated reasons was not surprising.

Another reason may be considered to be more closely related to the particular academic setting. It would seem, for instance, that the students who changed their minds about a nursing career and transferred to other programs would more readily do so in a school in which the opportunity for such transfer exists, may not be frowned on, and may not involve appreciable credit loss to students.

Students leaving the associate degree programs to enroll in other nursing programs represent another attrition cause and one raising some questions about the effectiveness of initial guidance, if any, by high school counselors and nursing program representatives. Since the types of nursing programs to which such transfers were made are not known, it cannot be asserted that these students were poorly guided into a program either above or below their assumed capabilities. In either case, they and the programs would have been better served had the student originally been admitted into the program considered most suited to her needs as well as those of the profession.

Another factor that contradicts the idea of the "open-door" policy for students in associate degree nursing programs is the cost of such programs. Although it might be assumed that privately financed programs would charge tuition and other fees, it might also be assumed that, in the tradition of public tuition-free education in the United States, this would not be the case in publicly supported community colleges, constituting the vast majority of institutions represented by the associate degree nursing programs.

The findings suggest that while some programs do, indeed, have a tuition-free policy, the majority expect the students to pay tuition, some on a differential scale for resident and non-resident students.

Considering the fees and general expenditures over and above tuition cost, including health maintenance costs charged in most programs and for which the student alone is almost universally responsible, one can hardly refer to the community college as an "open-door" institution that accepts all comers. For some nursing students such total costs may even be somewhat higher if, as is the case in some programs, they are required to have examinations or procedures not required of other students or required in addition to those for all other students. It becomes at once apparent that, while the educational costs may be far below those in other institutions of higher learning, and while it may be considered desirable for the student to contribute financially to her education and thus help defray its cost, some worthwhile students may be kept out for financial reasons.

Despite these reported financial obligations imposed upon students, only limited numbers among them were reported as having availed themselves of either loan or scholarship assistance, although such financial resources for educational purposes were available.

From a percentage point of view, the given number of aid recipients are representative of varying proportions of the students who were eventually graduated, at times involving more than half of such a group in a given program. It must be pointed out, however, that some students may have availed themselves of multiple types of assistance and that the representation of students as recipients of either loans or scholarships may, in fact, involve some of the same students.

Considering the fact that financial impediments may, indeed, have kept some students from entering the program and that a fair proportion of students do avail themselves of loans and scholarships, the factor of financial support for students in associate degree nursing programs is of significance. An effective guidance process, as has been pointed out innumerable times before, is of importance to acquaint the interested individual with means whereby she can enter the program if financial considerations should threaten to keep her out. Financial support must also be evaluated seriously in relation to the possible diminution in manpower potential as a result of non-admission due to financial reasons.

Thus, despite the so-called open-door policy, the number of entrants to associate degree nursing programs may be reduced by admission policies, a seemingly diminishing interest on the part of applicants who fail to enter although accepted, financial demands, and other weeding-out processes in which both the programs and the students are involved. The policy of high selectivity in ADN programs has been challenged by some on the basis of societal needs and the possibility of motivation of low achievers by dedicated teachers.[12] The findings of this study suggest the consideration of a more creative and aggressive approach toward salvaging students who have already entered the program.

Since associate degree programs are preparing an increasing number of nurse practitioners equipped to perform intermediate or technical nurse functions, their clinical performance is therefore of more than passing interest to educator, administrator, and patient. As one index of this, this survey focused on performance on the nurse licensure examination, the gateway to nursing practice.

Associate degree graduates generally write the examination and, like candidates from other programs, do not all pass. The programs have indicated that between less than 50 percent and 100 percent of their candidates do pass. Because the proportions cited are representative of differently sized groups, it must be noted that different proportions of candidate groups would have to retake the examination in order to function as registered nurses. Since some of the "retakers" do pass, they constitute an eventual addition to the manpower supply of nurses.

Test results indicate that state means, by and large, exceeded those of the schools for all subjects. The associate degree graduates, however, "did better" with some and less well with other subjects tested and this was reflected in the data. Thus, when school means exceeded those for the state, the least number of programs cited such means for medical nursing, the largest number for psychiatric nursing.

Interestingly enough, despite the fact that calculated percent differences between school and state means clearly indicate that the latter exceeded the former more frequently and to a greater extent, such differences in most instances were small, tending to cluster around the "less than 5 percent" category, when either school or state means were higher. Furthermore, a majority of the programs reported a minimum of 1 test on which their mean scores exceeded those of their respective states, although the proportion of programs indicating different numbers of tests varied with the region in which they were located.

The interpretation of findings related to initial performance on the licensure examination of graduates from the three types of basic nursing programs indicates differences in their success on these paper and pencil tests and a reduction in mean scores over the years for all three types of programs. In the past, associate degree graduates equalled or excelled other candidates in performance on the licensure examination. Whether changing test results, denoting greater differences among the three programs, can be related to emphasis in the teaching process, teacher qualifications, innate capabilities and interests of students, or timeliness and degree of difficulty of questions asked need yet to be determined for a more precise interpretation of test findings.

The fact that a majority of programs try to ascertain the postgraduate activities of their students is a major step in a self-evaluative direction, with implications for continued improvement in program development, and consequent performance of graduates on licensure examinations as well as in the clinical areas.

The involvement of employers and the use of general meetings in addition to graduates in follow-up attempts also augurs well for the possibility of a common meeting ground for education and service representatives in the attempt to improve their respective contributions to better patient service.

Judging by the small number of associate degree graduates reported as continuing with their education in nursing, they do not seem to represent a ready source of supply for the pool of baccalaureate graduates; those who changed to different fields of endeavor, even less so.

The fact that most associate degree graduates who were employed during the year following their graduation functioned in hospitals would lead one to assume that, at least for that time period, these graduates generally function as bedside nurses. Whether they are, in fact, doing just that has been explored to some extent but should be examined further and on a more global level.[13]

Existing, expected, and still unanticipated societal requirements for effective and safe nursing services, as well as the continued mushrooming of associate degree programs, point toward even greater challenges for associate degree education in nursing in the future. At present, associate degree preparation in nursing seems firmly established as an acceptable educational means of preparing bedside nurses for technical practice and, as such, has been approved by the American Nurses' Association.[14]

The findings of this survey indicate that associate degree education for nursing is not exempt from the problems the entire academic world faces today. At the same time, there is reason to believe that those involved in moving associate degree education forward in order to contribute in an effective manner to the educational preparation of an important component of our manpower supply of nurses will continue to face the individual and common challenges of the future.

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CHAPTER XIV

CONCLUSIONS

The conclusions in this study relate primarily to descriptive information. The relative newness of the programs and the difficulty of obtaining conclusive data that differentiate between their strengths and weaknesses precludes any highly evaluative type of information from being obtained.

The following conclusions are supported by the findings of this study and are based on information submitted by varying numbers of programs.

1. Associate degree nursing programs have developed written philosophies and objectives.

2. Associate degree nursing programs are generally in schools that are regionally accredited, although they have, as a rule, not received peer accreditation from the National League for Nursing.

3. In associate degree nursing programs the director is an active participant in the organizational mechanisms of the program, although she shares responsibilities and privileges, in varying degrees, with faculty members, administrator, and others.

4. Directors in associate degree nursing programs are generally responsible to the administrator of the school.

5. In associate degree nursing programs a higher proportion of directors than of instructors have earned masters or higher degrees and have had formal preparation to teach in community colleges.

6. Faculty composition in associate degree nursing programs differs in terms of:

    a. total number of instructors per faculty

    b. proportion of instructors with earned masters or higher degrees, formal preparation to teach in community colleges, and previous teaching experience

7. In associate degree nursing programs, directors are more likely to participate in classroom teaching, and part-time faculty in laboratory teaching.

8. Associate degree nursing programs attract students who are predominantly female, single, and 20 years of age or older. Associate degree nursing students, in comparison with students in other nursing programs, are somewhat older and with a higher proportion of male and married students.

9. Students in associate degree nursing programs, representing varying proportions of eventual graduates, avail themselves of loan and scholarship assistance.

10. The number of potential associate degree graduates is reduced by several factors:

    a. admission criteria

    b. applicant decision not to enter the program

    c. student withdrawals

11. Associate degree nursing programs, more often than other instructional units in the college, require evidence of capability for admission, particularly the personal interview.

12. Associate degree nursing programs vary in their collaborative arrangements with cooperating institutions in terms of:

    a. total number of cooperating institutions utilized for clinical laboratory experience

    b. proportion of cooperating institutions with signed contracts or agreements

    c. proportion of contracts or agreements in which expected student-learning experiences are stated

13. Cooperating institutions vary in their physical distance from the host school.

14. Appropriate resources and facilities are generally available to faculty members and students from associate degree nursing programs, although colleges are not likely to have dressing space, and cooperating institutions most often do not provide office space.

15. The annual cost of operating an associate degree nursing program for a given year varies among the programs.

16. Associate degree nursing programs generally are not tuition-free and individual total cost to students per program varies among them, and between resident and nonresident students.

17. In community colleges, adherence to similar school policies for nursing faculty and those in other instructional units in the school is, in part, reflected in similar salary determinants, with the exception of clinical teaching experience which is indicated more often for nursing faculty.

18. The acculturation of nursing faculties in community colleges may, in part, be reflected in their participation on standing committees of the school, concerned with college affairs in general.

19. Curriculums in associate degree nursing programs differ in terms of:

    a. being offered in either semester or quarter programs

    b. length of program course

    c. curriculum unit and total credit requirements

    d. number of total clock hours required for different curriculum units, reflecting the absence of standardized credit requirements among programs, for classroom and clinical laboratory instruction

    They are similar in that:

    a. they generally have similar credit requirements for general education and nursing courses

    b. there is no variation in weekly class credit hour equivalents between nursing and general education courses, although some variations do exist in credit hour equivalents for laboratory instruction

20. Graduates from associate degree nursing programs are capable of writing and passing the registered nurse licensure examination.

    A majority of programs have mean scores that exceed those of the state on at least one of the five tests in the examination, although mean scores for individual programs are generally lower than state scores.

21. Associate degree nursing programs generally have follow-up plans to keep informed of what their graduates are doing, although the programs differ in the means they employ to secure this information.

22. Associate degree graduates, during the first year following graduation, generally work in hospitals, and few continue with their education either in nursing or non-nursing programs.

23. Regional distribution differentiates among programs in

   a. number of full-time faculty members on program rosters

   b. percent of faculty with masters or higher degrees

   c. age of program

   d. size of enrollment

   e. percent of applicants who qualify for admission

   f. percent of graduates writing the registered nurse licensure examination who pass on first trial.

APPENDIX A

NATIONAL LEAGUE FOR NURSING 2981

10 Columbus Circle, New York, New York 10019

A NATIONAL SURVEY OF THE ASSOCIATE DEGREE PROGRAMS IN NURSING

1967

Directions: Please read all questions carefully and place the appropriate answer(s) for each in the space(s) provided. *Please respond to all questions.* If you are sure there is no appropriate answer for a given question, indicate this with 0 (zero) in the answer space. Thank you.

For Office Use Only
11-
12-
13-
14-
15-
16-
17-

Name of person completing questionnaire ____________

Title ____________

Please return one copy in the enclosed envelope by March 10, 1967

to

National League for Nursing, Research and Studies Service
10 Columbus Circle, New York, New York 10019

GENERAL INFORMATION

Do not write in this space: 2981

1. In what year was the associate degree program in nursing established? ____________ 18-

2. Check the source(s) from whom you or your predecessor(s) received assistance during the time your school explored the feasibility of establishing an associate degree program in nursing: 19-1 -2 -3 -4 -0

State Board of Nursing	☐	20-1
State Department of Education	☐	21-1
National League for Nursing	☐	22-1
American Association of Junior Colleges	☐	23-1
Personnel of community or junior colleges with nursing programs	☐	24-1
Hospital personnel	☐	25-1
Nursing association	☐	26-1
Professors of nursing education (other than from community or junior college)	☐	27-1
Publications concerning associate degree programs in nursing	☐	28-1
Other (specify) ____________	☐	29-1

3. Has your nursing program, at any time, received financial support from the Federal Government other than research grants?

Yes, currently	☐	30-1
Yes, in the past but not currently	☐	-2
No support	☐	-3
		-0

Do not write in this space: 2981

4. Is the college accredited by the regional accrediting body? Yes ☐ No ☐ 31-1 -2 -0

5. Do you have an oral or written philosophy for the nursing program?

Oral	☐	32-1
Written	☐	-2
No philosophy	☐	-3
		-0

6. Do you have oral or written objectives for the nursing program?

Oral	☐	33-1
Written	☐	-2
No objectives	☐	-3
		-0

If there are objectives, by whom were they developed? (Check all that apply.)

Director of the nursing program	☐	34-
Faculty of the nursing program	☐	
A member of the college administration	☐	
Other (specify) ____________	☐	

7. Has your college ever participated in research activities related to any aspect of the associate degree program in nursing? Yes ☐ No ☐ 35-1 -2 -0

If "Yes," list the project by name, the agency that proposed the project (including your own), and the time interval during which the project was(is) in progress.

	Project	Agency	Time		
1.	______	______	From ______	To ______	36-
2.	______	______	From ______	To ______	37-
3.	______	______	From ______	To ______	38-
4.	______	______	From ______	To ______	
5.	______	______	From ______	To ______	

ORGANIZATION AND ADMINISTRATION

Do not write in this space

8. Give the number of institutions and/or agencies that provide clinical experiences for the nursing courses. (Exclude field trips.) 2981 39-

Type of Institution or Agency	Number	
Hospital, general	____	40-1
Hospital, psychiatric	____	41-1
Nursing home	____	42-1
Public health agency	____	43-1
Schools (nursery, kindergarten, elementary)	____	44-1
Community projects (Head Start, city recreation department, etc.)	____	45-1
Doctor's office	____	46-1
Other (specify)____________	____	47-1

How many of these institutions and/or agencies have entered into written contractual agreements with the college to provide these experiences?
Number ______ None ______ 48-

9. If there are written contracts or agreements, do they state:
The learning experiences expected?
Yes for all contracts ☐ 49-1
Yes for some, but not all contracts ☐ -2
No ☐ -3

That the responsibility for supervision and teaching of students in the clinical area is fixed with faculty employed by the college only?
Yes for all contracts ☐ 50-1
Yes for some, but not all contracts ☐ -2
No ☐ -3

That the responsibility for supervision and teaching of students in the clinical area is shared by faculty employed by the college and the cooperating agency?
Yes for all contracts ☐ 51-1
Yes for some, but not all contracts ☐ -2
No ☐ -3

That the responsibility for supervision and teaching of students in the clinical area is fixed with faculty employed by the cooperating agency only?
Yes for all contracts ☐ 52-1
Yes for some, but not all contracts ☐ -2
No ☐ -3

Do not write in this space

10. Who has the responsibility for determining the content of the contractual agreements with the cooperating institution(s)? (check one) 2981
Director, nursing program ☐ 53-1
Administrator, college ☐ -2
Director and administrator ☐ -3
Other (specify)____________ ☐ -4
____________ -0

11. Is the director of the associate degree program in nursing directly responsible to the administrator of the college? Yes ☐ No ☐ 54-
If "No," indicate the title of the person to whom (s)he is directly responsible:
Assistant administrator of college ...... ☐
Dean/director of technical or vocational education .... ☐
Other (specify)____________ ☐
____

12. Is there a separate budget for the associate degree program in nursing?
Yes ☐ No ☐ 55-1
-2
-0

13. Who has the responsibility for determining the budget needs of the nursing program? (check one)
Director, nursing program .... ☐ 56-
Director and faculty, nursing program ☐
Administrator, college .... ☐
Director and administrator .... ☐
Other (specify)____________ ☐
____

14. Who controls the disbursement of the funds budgeted for the associate degree program in nursing? (check one)
Director, nursing program .... ☐ 57-1
Administrator, college .... ☐ -2
Director and administrator .... ☐ -3
Other (specify)____________ ☐ -4
____________ -0

Do not write in this space

15. Has the college tried to determine the cost of operating the nursing program for a given year? 2981
Academic year Yes ☐ No ☐ 58-1
or -2
Fiscal year Yes ☐ No ☐ -3
If "Yes," -0

a) what was the nursing enrollment and total cost determined for the year studied?

Year: 19___ Enrollment: ____ Total cost:______ 59-

b) how does the cost for the nursing program compare with that of other instructional programs in the college? 60- 61- 62-

Smaller ☐ Equal ☐ Greater ☐ Don't know ☐

Do not write in this space

16. Who has the responsibility for the screening and recommendation of candidates for appointment, retention, and promotion as faculty members? (check one) 2981
Director, nursing unit .... ☐ 63-1
Administrator, college .... ☐ -2
Director and administrator .... ☐ -3
Other (specify)____________ ☐ -4
____________ -0

17. Who has the responsibility for defining the educational and other related functions of faculty members? (check one)
Director, nursing unit .... ☐ 64-
Administrator, college .... ☐
Director and administrator .... ☐
Faculty .... ☐
Director and faculty .... ☐
Director, administrator, and faculty ... ☐
Other (specify)____________
____

THE STUDENTS

18. What are the demographic characteristics of the students currently enrolled in your program? (Give the number separately for male and female students in every category for each year of study.)

Students Enrolled in January, 1967

Demographic Characteristics	1st Year of Study		2nd Year of Study		3rd Year of Study	
	Male	Female	Male	Female	Male	Female
Total number of students enrolled	65-	66-	67-	68-		
Local resident	69-	70-	71-	72-		
Less than 20 years old	73-	74-	75-	76-		
20 through 24 years old	11-	12-	13-	14-		
25 through 29 years old	15-	16-	17-	18-		
30 through 39 years old	19-	20-	21-	22-		
40 years and older	23-	24-	25-	26-		
Single	27-	28-	29-	30-		
Married	31-	32-	33-	34-		
Widowed, divorced	35-	36-	37-	38-		
Living on campus or in off-campus approved housing	39-	40-	41-	42-		

2982

Do not write in this space

19. Are there written or oral policies related to student health? 2982

Oral ☐ 43-1
Written ☐ -2
No policies ☐ -3
-0

20. Which of the following are required of all students in the college? (Check all that apply.)

If required, who bears the cost of each?

			Student	School	Cooperating Institution	
Physical examination	☐	44-1	☐	☐	☐	48-
Chest x-ray	☐	45-1	☐	☐	☐	49-
Immunization	☐	46-1	☐	☐	☐	50-
Health insurance	☐	47-1	☐	☐	☐	51-

21. Which of the following are required of the students in the associate degree program in nursing only? (Check all that apply.)

If required, who bears the cost of each?

			Student	School	Cooperating Institution	
Physical examination	☐	52-1	☐	☐	☐	56-
Chest x-ray	☐	53-1	☐	☐	☐	57-
Immunization	☐	54-1	☐	☐	☐	58-
Health insurance	☐	55-1	☐	☐	☐	59-

22. Who bears the cost of medical and/or hospital care for students who do not have health insurance?

	Student	School	Cooperating Institution	
For students in the college, but not those in the associate degree program in nursing	☐	☐	☐	60-
For students in the associate degree program in nursing	☐	☐	☐	61-

Do not write in this space

23. What evidence of capability is required before a student is selected for admission into the nursing program? Into the college in general? (Check all that apply.) 2982

	Nursing Program	College
High school graduation	☐ 62-1	☐ 63-1
Minimum high school standing	☐ 64-1	☐ 65-1
High school grade point average	☐ 66-1	☐ 67-1
Personal interview	☐ 68-1	☐ 69-1
Physical examination	☐ 70-1	☐ 71-1
Pre-entrance:		
Aptitude test	☐ 72-1	☐ 73-1
Achievement test	☐ 74-1	☐ 75-1
Personality inventory	☐ 76-1	☐ 77-1
Other (specify) ________	☐ 11-1	☐ 12-1

2983

24. The following questions pertain to applicants for the nursing program during the year 1966. (If records of applications were not kept, please estimate.)

a. How many persons applied for admission to the nursing program? ______ 13-

b. How many applicants were qualified for admission into the nursing program? ______ 14-

c. How many applicants were accepted for admission into the nursing program? ______ 15-

d. How many students actually entered the nursing program? ______ 16-

e. How many applicants who applied to the nursing program were denied admission? ______ 17-

f. Give the three most frequent reasons why applicants to the nursing program were denied admission, if any: 18- 19- 20- 21-

1. ______________________ 22- 23-
2. ______________________ 24- 25-
3. ______________________

Do not write in this space

25. Give the number of first-year students who were enrolled and the number who withdrew from the nursing program: 2983
1) during its first academic year and
2) during the academic year of September 1, 1965–August 31, 1966 for the reasons indicated below. (Please give the dates of the first academic year of the nursing program in the space provided under "Academic Year".)

	Academic Year	
	19___ 19___	1965–1966
Total Enrollment	26-	27-
Total Withdrawals	28-	29-
Reason for Withdrawal		
Scholastic Failure	30-	31-
Transfer to Another Program in Nursing	32-	33-
Transfer to Another Program, not Nursing	34-	35-
Marriage and/or Pregnancy	36-	37-
Other (specify) ________	38-	39-

26. On which of the following is the determination of student grades based? (Check all that apply)

Scores on teacher-made tests .... ☐ 40-1
Scores on standardized achievement tests ☐ 41-1
Performance evaluation ratings by instructors .... ☐ 42-1
Performance evaluation ratings by nursing personnel in cooperating agencies .... ☐ 43-1
Other (specify) ________ ☐ 44-1

27. What grade point average is required for:
Promotion ________ 45-
Graduation ________ 46-

On what scale is the determination of the grade point average based? (check one)
1☐ 2☐ 3☐ 4☐ 5☐
Other (specify) ________ ☐ 47-

Do not write in this space

2983

28. How many graduates passed the professional nurse licensure examination the first time it was taken for the students graduating in 1966?
   a) Number of graduates in 1966 ______ 48-
   b) Number of 1966 graduates taking the examination ______ 49-
   c) Number of 1966 graduates passing the examination on first trial ______ 50-

51-
52-
53-

29. Give the mean scores for the school and for the state of the nurse licensure examinations for the year 1964–1965.

Subject	School Mean	State Mean	
Medical nursing	54- ______	55- ______	64-
Surgical nursing	56- ______	57- ______	65-
Obstetric nursing	58- ______	59- ______	66-
Nursing of children	60- ______	61- ______	67-
Psychiatric nursing	62- ______	63- ______	68-
			69-

30. State the average cost to one student graduating in 1967 for the entire nursing program (exclude personal expenses such as personal clothing). If there is no charge for a given item, please indicate with $0.

Tuition: All students .... $______ 70-
or
Resident .... $______ 71-
and
Non-resident (out of city, county, or state) .... $______ 72-
Testing, application, and admission fees .... $______ 73-
Required health examination fees $______
Required hospital and medical care insurance.................... $______
Other required fees (specify)
______ $______ 74-
Uniforms .... $______
All required textbooks .... $______
Laundry .... $______
Other charges or required purchases (specify) ______
______ $______
If room and board are provided for some or all students:
Room (total for one student for entire program).............. $______ 75-
Board (total for one student for entire program).............. $______ 76-
77-

Do not write in this space

2984

31. Indicate student aid that was given to members of the class completing the nursing program in 1966. (Please indicate when number of students or total amount is zero.)

	Number of Students Aided	Estimated TOTAL Amount for These Students	
Loans	11-	12- $	17-
Scholarships	13-	14- $	18-
Other (specify)	15-	16- $	

32. Do you have a plan for the systematic follow-up of graduates from the nursing program?
Yes ☐ No ☐ 19-1
If "Yes," check the approach(es) included in your plan. -2
-3
Periodic questionnaires to employers -4
of graduates .... ☐ -0
Periodic questionnaires to graduates ...... ☐ 20-
Periodic scheduled alumnae meetings ..... ☐
Periodic scheduled meetings, not alumnae ☐
Other (specify)______ ☐

33. State the number of nursing program graduates of the year 1966 who, to the best of your knowledge, are engaged in any of the following activities. Report each graduate only once and only in her main activity.

Number

a) employed in a hospital............ ______ 21-1
b) employed in a nursing home...... ______ 22-1
c) employed in private duty nursing ______ 23-1
d) employed in an office or agency other than a hospital or nursing home .... ______ 24-1
e) neither employed nor continuing education .... ______ 25-1
f) continuing formal education in nursing .... ______ 26-1
g) continuing formal education (not in nursing) .... ______ 27-1
h) other health field occupations .. ______ 28-1
i) other non-health field occupations 29-1
j) not known .... ______ 30-1
Total number of graduates (1966) ______ 31-1
32-

THE FACULTY

34. Give the number of nurse-faculty members, including the nurse-director, who are currently employed in the nursing program of the college either full-time or part-time.
Full-time ______ Part-time______ 33-
34-

35. What are the educational qualifications and experiences of the faculty members in the nursing program? (If answer is "None," indicate with zero. If answer is "Yes" or "No," indicate by checking the appropriate column.)

36. What was the work schedule of each faculty member for the week of February 27, 1967?

2988
18-19

	20- Full-time*	Part-time**	21- Highest Earned Degree	22- Degree Major	23- Years on Present Faculty	24- Years Teaching in Nursing Prior to Present Position	25- Years of Other Nursing Experience	26- Formal Preparation for Junior/Community College Teaching		27- Number of Hours Lab Teaching	28- Number of Hours Classroom Teaching	29- Number of Hours Clinical Practice Units
								Yes	No			
Director of program												
Other faculty (list each by title and area of teaching, e.g., instructor, fundamentals of nursing)												

*Working on this nursing program faculty total number of hours stipulated by school administration as representing a full-time position.

**Working on this nursing program faculty fewer than total number of hours stipulated by school administration as representing a full-time position.

Do not write in this space
2984
35-
36-
37-
38-
39-
40-

Do not write in this space

37. Give the total number of standing committees in existence in your college. 2984

Number ____________ 41-

Of these, how many have representatives from the faculty of the nursing program?

Number ____________ 42-

38. What is the basis for determining salary differentials for faculty members for the college in general? For the nursing program? (Check the appropriate response(s) for each.)

College	Factor	Nursing Unit
43-1 ☐	Academic rank	44-1 ☐
45-1 ☐	Educational preparation	46-1 ☐
47-1 ☐	Teaching experience, formal	48-1 ☐
49-1 ☐	Teaching experience, clinical	50-1 ☐
51-1 ☐	Research activities	52-1 ☐
53-1 ☐	Publications	54-1 ☐
55-1 ☐	Evaluation of teaching performance	56-1 ☐
57-1 ☐	Other (specify) ____________	58-1 ☐

59-1
-2
-0

CURRICULUM

39. Who is responsible for the organization and development of the associate degree nursing curriculum? (check one)

Director, nursing program ☐ 60-
Nurse-faculty ☐
Director and nurse-faculty ☐
Nurse-faculty and other faculty ☐
Director and total faculty ☐
Other (specify) ____________ ☐

Do not write in this space

40. Indicate the time and credit allocation characteristics of the associate degree program in nursing. 2984

If on a Semester Basis

Total number of semesters ____ 61-
Number of summer sessions ____ 62-
Number of credits required for graduation: 63-
In nursing ____ 64-
In general education ____ 65-
Total ____

Weekly class hour equivalent for 1 credit
Nursing courses: 66-
Classroom instruction ____ 67-
Classroom laboratory ____ 68-
Clinical laboratory ____
General education courses: 69-
Classroom instruction ____ 70-
Classroom laboratory ____

If on a Quarter Basis

Total number of quarters ____ 71-
Number of credits required for graduation: 72-
In nursing ____ 73-
In general education ____ 74-
Total ____

Weekly class hour equivalent for 1 credit
Nursing courses: 75-
Classroom instruction ____ 76-
Classroom laboratory ____ 77-
Clinical laboratory ____
General education courses: 2985
Classroom instruction ____ 11-
Classroom laboratory ____ 12-

41. Academic program.

Answer this question only if your program is on a semester basis.
Give the total number of clock hours within a given curriculum unit which the students spend in class, laboratory, and clinical area. Indicate this separately for each semester and summer session, if any. Also indicate the total number of credits for each curriculum unit based on the number of credits for all the courses that comprise it.

If on a semester basis

Total Clock Hours Spent in Class, Laboratory, and Clinical Area

2989 18- Curriculum Unit	Total Number of Credits	Area of Study	First Year 1	First Year 2	First Year Summer	Second Year 1	Second Year 2	Second Year Summer	Third Year 1	Third Year 2	Third Year Summer	Total
Fundamentals of Nursing	19-	Classroom	20-			21-			22-			23-
		Class Lab.	24-			25-			26-			27-
		Clinical Exp.	28-			29-			30-			31-
Maternal and Child Health	32-	Classroom	33-			34-			35-			36-
		Class Lab.	37-			38-			39-			40-
		Clinical Exp.	41-			42-			43-			44-
Medicine and Surgery	45-	Classroom	46-			47-			48-			49-
		Class Lab.	50-			51-			52-			53-
		Clinical Exp.	54-			55-			56-			57-
Psychiatric Nursing	58-	Classroom	59-			60-			61-			62-
		Class Lab.	63-			64-			65-			66-
		Clinical Exp.	67-			68-			69-			70-
2990 18- General Education and Related Courses	19-	Classroom	20-			21-			22-			23-
		Class Lab.	24-			25-			26-			27-
		Clinical Exp.	28-			29-			30-			31-
Total	32-											

42. Academic program.

Answer this question only if your program is on a quarter basis.
Give the total number of clock hours within a given curriculum unit which the students spend in class, laboratory, and clinical area. Indicate this separately for each quarter. Also indicate the total number of credits for each curriculum unit, based on the number of credits for all the courses that comprise it.

If on a quarter basis

Total Clock Hours Spent in Class, Laboratory, and Clinical Area

2991 18- Curriculum Unit	Total Number of Credits	Area of Study	First Year 1	2	3	4	Second Year 5	6	7	8	Third Year 9	10	11	12	Total
Fundamentals of Nursing	19-	Classroom	20-				21-				22-				23-
		Class Lab.	24-				25-				26-				27-
		Clinical Exp.	28-				29-				30-				31-
Maternal and Child Health	32-	Classroom	33-				34-				35-				36-
		Class Lab.	37-				38-				39-				40-
		Clinical Exp.	41-				42-				43-				44-
Medicine and Surgery	45-	Classroom	46-				47-				48-				49-
		Class Lab.	50-				51-				52-				53-
		Clinical Exp.	54-				55-				56-				57-
Psychiatric Nursing	58-	Classroom	59-				60-				61-				62-
		Class Lab.	63-				64-				65-				66-
		Clinical Exp.	67-				68-				69-				70-
2992 18- General Education and Related Courses	19-	Classroom	20-				21-				22-				23-
		Class Lab.	24-				25-				26-				27-
		Clinical Exp.	28-				29-				30-				31-
Total	32-														

11

RESOURCES AND FACILITIES

Do not write in this space

2985

43. Indicate which of the listed facilities are available for the students and faculty members of the nursing program. (Check all that apply for the college and for the cooperating institutions.)

College	Available Facilities	Cooperating Institutions All	More Than Half	Half	Less Than Half	None	
13-	Office space for faculty						19-
14-	Classrooms						20-
15-	Conference rooms						21-
16-	Storage space (teaching materials)						22-
17-	Locker and dressing room facilities						23-
18-	Reference materials						24-

44. How many of the cooperating institutions are not within walking distance of the college?

Number________ None ______ 25-

If there are cooperating institutions not within walking distance of the college, how many miles away is the

Closest________miles 26-
Furthest________miles 27-

45. Indicate the availability of college library facilities for students and faculty of the nursing program. (check one)

Separate library for students and faculty of the nursing program .... ☐ 28-1
Combined library for all students and faculty in college .... ☐ -2
No library facilities .... ☐ -3
Other (specify)________ ☐ -4
________ -0

46. If library and/or audio-visual facilities are available, do faculty members in the nursing program participate in their selection?

Yes ☐ No ☐ 29-1
-2
-0

12

APPENDIX A (Continued)

nursing services—nursing education—citizen participation

NLN

national league for nursing, inc.

•10 COLUMBUS CIRCLE, NEW YORK, N.Y. 10019
AREA CODE 212
•JUdson 2-1022

Enclosed are two copies of a questionnaire designed to obtain information about the characteristics that distinguish the associate degree programs and the nurses they prepare. We request and hope that you will participate in this survey by completing and returning one copy of the questionnaire. A second copy is included for your files.

In 1961 the National League for Nursing published the results of a survey of associate degree programs in nursing based on information from nearly all of the 48 programs in existence during the 1958-1959 academic year. The intervening years bore witness to a marked increase in these numbers. The latest count, done in the fall of 1966, indicates that across the nation 218 associate degree programs are participating in the preparation of graduate nurses for bedside care.

During their "formative" years associate degree programs were assisted in their developmental and self-evaluative efforts by the NLN. The organization was helped in this endeavor by a nine-year grant from the Sealantic Fund, Inc., which is supported by the Rockefeller Brothers Fund.

At this time, the presentation of the findings of a survey of associate degree programs in nursing would 1) offer the opportunity to compare today's associate degree program with that of "yesteryear's" on a number of pertinent factors; 2) paint a clear and pragmatic picture of the contribution of the associate degree program to nurse preparation; and 3) serve as the final report to the Sealantic Fund, Inc., which, over the past decade, so generously contributed to the growth and development of associate degree programs.

We request that you answer all questions as fully as possible, thereby providing the necessary data for such a survey. Please return the completed questionnaire not later than March 10, 1967. Thank you for your interest and cooperation.

Sincerely,

Sylvia Lande

Sylvia Lande
Assistant Director
Research and Studies Service

SL:dd

Encls.

"...that the nursing needs of the people will be met."

APPENDIX B

National League for Nursing, Research and Studies Service
10 Columbus Circle, New York, N. Y. 10019
March 27, 1967

About two weeks ago we directed to you a survey-questionnaire about the associate degree program in nursing.

Although the time limit indicated in the covering letter was March 10, 1967, there is still time for the information concerning your program to be included in the data to be processed.

Won't you please complete the questionnaire and mail it to us as soon as possible? We should be most thankful for your cooperation.

Sincerely,
Sylvia Lande
Sylvia Lande, Assistant Director
Research and Studies Service

APPENDIX C

nursing services—nursing education—citizen participation

NLN

national league for nursing, inc.

• 10 COLUMBUS CIRCLE, NEW YORK, N.Y. 10019
AREA CODE 212
• 582-1022

Not too long ago the National League for Nursing launched a national survey of the associate degree programs in nursing.

It was felt that, once again, the time had come for a "stock-taking" of some of the factors related to the continued development of these programs. It was also anticipated that the information shared with us by those most involved with such development would serve as a basis for reference for all those interested in associate degree education in nursing and the programs, in 1967, that provide such education.

Needless to say, the greater the number of "in the know" respondents, the more representative will the reported findings be. Won't you please help us achieve a total representation of programs in our findings by completing the questionnaire we are enclosing for your convenience? We are taking the liberty of doing so in case the questionnaire we mailed earlier was lost.

We would, very much, like to be able to include the data concerning your program in our forthcoming report.

Thank you once more for your interest and cooperation.

Sincerely,
Sylvia Lande
Sylvia Lande
Assistant Director
Research and Studies Service

SL:dd

"...that the nursing needs of the people will be met."

APPENDIX D

nursing services—nursing education—citizen participation

NLN

national league for nursing, inc.

•10 COLUMBUS CIRCLE, NEW YORK, N.Y. 10019
AREA CODE 212
•JUdson 2-1022

To: State Boards of Nursing

From: NLN Research and Studies Service

Subject: Study of Associate Degree Programs

Date: May, 1967

The NLN Research and Studies Service is engaged in a questionnaire study of characteristics of associate degree programs throughout the United States.

One of the items on the questionnaire asked each school to "give the mean scores for the school and for the state on the nurse licensing examinations for the year 1964-1965." The NLN Evaluation Service checked the data reported by each school in response to this question, and found that less than 20% of the schools had given accurate information for both the school and the state means.

We are writing to you at this time to request your permission for the NLN Evaluation Service to supply the NLN Research and Studies Service the correct data on your state mean and the school means of the associate degree programs in your state, for the year 1964-65. The data will be used only to ascertain the direction and degree of deviation of associate degree programs from their state means. Neither school nor state means will be included in the study report, and no school or state will be identified.

Because of the present concern with the performance of graduates of associate degree programs, we feel that this item of information is an important part of the study. We hope, therefore, that you will give your permission for the NLN Evaluation Service to provide the necessary information. Please complete and return one copy of the enclosed form in the accompanying envelope no later than June 12, 1967.

To: NLN Research and Studies Service

From: ____________________ Board of Nursing

Subject: Study of Associate Degree Programs

Date: ____________________ 1967

This is to advise that our Board of Nursing ____ is
____ is not

willing for the NLN Evaluation Service to release our 1964-65 state mean and the means of our associate degree program(s) to the NLN Research and Studies Service for use in the study of characteristics of associate degree programs. We understand that no school or state means will be included in the study report, and no school or state will be identified.

Signature ____________________

Title ____________________